

# AMERICAN VETERINARY REVIEW.

JULY, 1896.

## EDITORIAL.

### HONOR TO WHOM HONOR IS DUE.

DR. GEORGE FLEMING, C. B.—In the *Veterinary Journal* for April, the worthy editor, Principal Williams, devotes a few remarks on the last honor granted to his predecessor, Dr. George Fleming, viz., that of a *special pension given by Her Majesty the Queen of England*. It is well for Principal Williams to have called the attention of the profession to the compliment paid Dr. Fleming, and we have no doubt that every veterinarian throughout the world will rejoice and say "well deserved." Of the modern veterinary generation there are but few men who have worked so hard for the profession, in the various capacities that he has occupied. His education, his knowledge, his efforts in behalf of the army veterinarians of England, his literary works (known to the whole of the English-reading scientists, to the practitioners, to the students), all his professional life devoted as it has been to the elevation of veterinary science, deserved well the honor placed upon him at this period of life, when he is entitled to retire from active work and enjoy the results of the good work he has done during a period of forty years.

DIRECTOR A. DEGIVÉ.—The reward just granted by the Queen of England is not the only one that has recently been bestowed upon a veterinarian on account of his past services. The January number of the *Annales de Bruxelles* brings us the news of another, which has for its recipient the worthy Director of the Cureghem Veterinary School, our friend and honored con-

*frère*, Professor A. Degivé. Some years ago the veterinary profession was elated over the election of Henri Bouley to the Presidency of the Academy of Sciences in Paris. This year our *confrères* in Belgium have just been celebrating the election of Director Degivé to the Presidency of the Royal Academy of Medicine of Belgium, and he has received the promotion of Officer of the Leopold Order. On the occasion of these double honors a professional manifestation, organized by the Belgian veterinary federation, took place on December 15th, and on the occasion a magnificent bust of Professor Degivé was presented to him in one of the large rooms of the veterinary school before an immense number of Belgian veterinarians, with government representatives, members of the teaching faculty, and all the students of the college. Among the several speeches that were delivered one by Mr. Brouwier attracted much attention, as he referred to the past life of the distinguished recipient, to his endeavors in behalf of veterinary science, to his efforts to improve veterinary education, and to the numerous works that he had contributed to the literature of veterinary medicine. The whole ceremony was one expression of unanimous appreciation, and that it was a reward well deserved—of an honor to one to whom honor was due.

The two above-mentioned recognitions of the value of the services rendered by two men in the performance of scientific duties speak well for those who were the receivers of the same; both of them have said, it was not to the individual that the honor was granted, but to the profession that they represented. Perhaps. H. Bouley, in his modesty, accepted the honor placed upon him as for the profession he represented. Fleming and Degivé, in their modesty, may say also that if the profession had not made the progress it has its value could not be appreciated as it is. That is true; but if it were not for men like the three we name here, who have been and are the standard-bearers of the profession, who devoted their time and their life to the onward push of veterinary science, it may be asked, would she have made the advances and the progress that she has? We

fear not. And it is with this impression that we join our colleagues of England and of Belgium in sending our warmest and sincerest congratulations.

AN ASSAULT UPON AMERICAN VETERINARY SCIENCE.—A peculiar bill, and one fraught with dangerous consequences, has been introduced into Congress, and reported favorably, by the Committee on the District of Columbia. The bill is rather innocently entitled "for the further prevention of cruelty to animals in the District of Columbia." Its provisions, however, are as follows:—

1.—That hereafter no person shall perform on a living vertebrate animal any experiment calculated to give pain, making any person guilty of offense who performs or takes part in any such experiment.

2.—That experiments must be performed with a view to the advancement of any new discovery of physiological knowledge or of knowledge which will be useful for saving or prolonging life or alleviating pain, and that in so-called inoculation,—experiments or tests of drugs or medicines, the animal need not be anaesthetized, nor during the process of recovery from surgical procedure.

3.—That experiments must be performed by a person holding such license from the Commissioners of the District of Columbia as in this act mentioned, or by a duly authorized medical officer of the Government of the United States, or the District of Columbia.

4.—That no experiment calculated to give pain shall be performed on a horse, mule, ass, dog or cat, except upon such certificate being given as in this act mentioned; provided that license shall not be granted to any person under the age of 25 years, unless he is a graduate from a medical college, duly authorized to practice medicine in the District of Columbia.

5.—That any application for a license under this act must be signed by three physicians duly licensed to practice and actually engaged in practicing medicine in the District of Columbia.

6.—That there shall be no vivisection in public schools or for exhibition to the general public.

7.—That all registered places shall be from time to time visited, without previous notice, by special inspectors, who shall report to the President of the United States, which reports shall be made public by him.

Senator Gallinger, of New Hampshire, who is a physician, is in charge of the bill, and has been pushing it vigorously.

An analysis of the bill shows peculiar thoughts, good and bad provisions confusedly put together by well-meaning but over-zealous humanitarians, aided by a certain element of the medical profession "actually engaged in practicing medicine."

It hits far above the mark, because its provisions ignominiously limit and obstruct, and with espionage thrown in, actually prohibit animal experimentation. It is a monstrosity because it classifies inoculation—and for that matter any injection—as a form of cruelty to animals.

We know of the existence of abuses in animal-experimentation in America, and the abolishment of vivisection in the public schools, with its deplorable moral result upon tender children, would find the hearty approval of the veterinary profession. A majority of us would even go so far as to allow restriction of vivisection in the many mediocre private schools and colleges and universities, where unripe professors are allowed to cruelly play with helpless domestic animals before a class of still more unripe pupils. But we must retain some places where the pressing problems of the day in biology and pathology can be solved by animal experimentation, and the proper places for such privileges are our renowned universities.

As far as pure veterinary science is concerned there is no institution in the United States where more extensive and valuable investigations in animal-diseases have been made, than at the Bureau of Animal Industry in Washington, D. C. The bill is a direct blow to this institution—charged by law with the duty of such investigations—and indirectly an assault upon American veterinary science, while the guardianship, under this act, of the "three physicians duly licensed to practice and actually engaged in practicing medicine" is an uncultured pretence and exhibition of hatred by some doctors having more gall than intellect.

We admire the work done by our humane societies,—of which the writer is an actual member,—and we wish to see injudicious vivisection on our domestic animals abolished, but we regard this bill as a failure from its limitless and wild provisions, dictated by a wing of ultra-fanatic antivivisectionists. If this is an example of future legislation in this line, the veterinary profession of America had better awake to the seriousness of this new difficulty confronting us, and take up this matter at our coming meetings. The veterinarian, to be above reproach, must be a



humanitarian. As a rule he is a lover of animals, and by instinct and education understands better their wants and needs than those who deal with them only in theory. He does not believe in mere pity and mercy in dealing with our domestic animals, but he acknowledges that they have certain rights, some of which he is daily enforcing in the exercise of his profession. One of these rights, which our domestic animals may justly claim from our hands, is the earnest and intelligent study of the ailments which nature has inflicted upon them, and civilization aggravated. This cannot be done at our present state of scientific knowledge without subjecting a few of them to certain tests for the benefit of the millions that are living and the untold numbers that are to come. Such tests, such investigations, we must look upon as our duty towards our profession, towards our domestic animals, and towards God, who has naturally charged us with their care and protection against ignorance and intolerance from whatever source it may come.

It is hardly to be expected that such a bill will be passed by an intelligent body of men. But, whatever may be its fate, it is certain to have an important bearing upon our future professional development. We must study more closely the claims of those who think it their privilege to infringe upon the rights of work and study of their fellow men, we must approve of just claims and show the fallacy of unjust fears, and all this in an intelligent and conservative manner, and commensurate with the dignity of our science.

O. S.

---

**TUBERCULOSIS, ACQUIRED AND HEREDITARY.**—The contention of the modern school of veterinarians that tuberculosis of cattle is more frequently acquired than inherited, was strikingly exemplified in a series of interesting experiments recently held at the Iowa Experiment Station, where a number of calves born of phthisical mothers and fed exclusively upon milk from healthy cows remained free from the disease, while the offspring of healthy mothers fed exclusively upon milk of consumptive animals contracted the disease. If these experiments can be repeated,

and verified beyond the possibility of contradiction, and the results placed before the country, it will prove a more powerful argument in securing legislation favoring dairy inspection than innumerable volumes of theoretical writings. It will demonstrate beyond doubt the dangers from the milk of tuberculous cows, and point the way toward the control, the reduction, and the extinction of the disease.

---

A VALUABLE CONTRIBUTION.—We are delighted to call the attention of our readers to the excellent article upon "Tumors of the Sinuses and Maxillary Bone," by the distinguished and talented Professor Cadiot, of the Alfort School. This contribution is but the first of a series of brilliant papers which this illustrious Frenchman will write specially for the REVIEW, and we congratulate our readers upon the acquisition of his wonderful genius. The editors of this journal will soon be in a position to announce original communications from other men of world-wide reputations, both at home and abroad.

---

PROGRESS OF VETERINARY EDUCATION.—The friends and promoters of a higher standard of veterinary education can now congratulate themselves upon the perfect fruition of their ambition and struggles to advance this important idea. Those schools which voluntarily led the way, somewhat perilous to their integral interests, being private enterprises and drawing sustenance through sharp competition, have every reason to feel proud that their diagnosis of the public pulse, their devotion to the cause, their willing sacrifice, have been rewarded by bringing into line every school of any magnitude, except one, upon the American continent, and it is only a matter of a little while before that school must conform to the new standard or close its doors. With its graduates debarred from recognition in the U. S. V. M. A.; with an examination before the Regents denied her future graduates in the most prosperous States of the Union, there can be but little inducement for young men to seek her diploma.

In our last issue, we were pleased to enroll upon the list of

three-year schools, the Chicago Veterinary College, which was extremely gratifying to her friends and alumni throughout the country. This month we take equal pleasure in announcing that the National Veterinary College at Washington, whose origin as a short-term school was always a mystery, and which was intended by the character of its promoters and surroundings to be one of the higher class, has made the declaration of a determination to inaugurate a three-term course; while the Detroit School is seeking a light to guide the way to the same result.

One thing is settled. If a school in this country in the present day cannot exist as a long-course school, it must close its doors as a short-course school.

---

WHAT MEANS THIS LETHARGY?—When Buffalo was chosen as the location for the annual meeting-place of the United States Veterinary Medical Association for 1896 we congratulated the members and the profession generally upon the wisdom of the selection, and at once became enthusiastic at the prospect of witnessing within the borders of the Empire State the grandest gathering of veterinarians and the most successful meeting from every standpoint that had ever been held under the auspices of the National Association. Every element that could conspire to enthuse interest and attendance seemed to be present. There can be no reason why that opinion should be altered now, and possibly we are becoming alarmed without sufficient cause; but it does appear to us from general observation that there is a degree of indifference and lassitude with reference to the important event that is only two short months away that does not promise well. In former years the journals at this stage were teeming with information relative to details of the great annual conclave—the papers to be read, the arrangements for traveling, the local rendezvous, and many minor details; all was expectancy and interest. That none of these announcements are obtainable for the meeting of 1896 is the cause of our concern. The REVIEW promised to keep its readers posted as the arrangements were

consummated, and has tried hard to keep faith with its obligations. The following extract from a letter received from the worthy Secretary, Dr. Stewart, just before we go to press, will show in a measure why our efforts have been crowned with such little success: " . . . I much regret the lethargy of interest in association matters—financial, literary, and social. Scores of letters sent to members do not elicit a response of any kind. . . . No word has been received from the committee of arrangements. I have just written the chairman requesting him to send to each of the veterinary journals at once such information as he might have concerning transportation concessions, hotels, places of meeting (hotels and hall), entertainments, etc., and hope you may receive such matter in time for the July issue." Beyond a list of papers to be read by Western veterinarians—which will be found elsewhere—there is absolutely no news available for our readers for this the last issue but one that will reach them in time to be of service before the meeting. And it is this state of affairs that has caused us some alarm for the success of what should be the greatest of all her meetings. With an earnestness born of deep concern we beseech those who have the conduct of the meeting in hand to awaken to the necessities of the occasion, and we ask all those who expect to contribute to the literary programme to at once announce themselves, so that arrangements may be completed.

---

NEW YORK STATE LEGISLATION.—The legislative committees of the State and county societies have been kept unusually busy during the late session of the solons at Albany, combatting mischievous bills introduced by members in the interests of private individuals, and bearing with them far-reaching injury to the profession at large. They have been so numerous, and so disguised, that it has been difficult for one to keep abreast of them. We have, therefore, much pleasure in directing attention to a communication in this month's REVIEW from that authority upon veterinary legislation in New York State, Dr. Arthur O'Shea, chairman of that committee of the

County Society, and member of a like committee of the State Association. It is a plain statement of the situation as it now stands, and the profession at large owe much to Dr. O'Shea and his colleagues for the very great amount of hard work which they have performed for the good of all. Their efforts will be greatly assisted if the suggestion to employ counsel permanently located at Albany to guard veterinary interests is favorably acted upon.

## ORIGINAL ARTICLES.

[WRITTEN SPECIALLY FOR THE AMERICAN VETERINARY REVIEW.]

### THE TUMORS OF THE SINUSES AND OF THE SUPERIOR MAXILLARY BONE.

BY PROF. P. J. CADIOT, ALFORT, FRANCE.

Lately, we have seen at our clinics a patient suffering with a tumor of the bones of the face, with which I declined to interfere. I wish to explain the motives of my abstention and for a few moments say some words on the subject of the neoplasms of the sinuses, of which we will find but a very incomplete study in our classical works.

Though less frequent than catarrhal inflammation of the mucous membrane, neoplasms of the sinuses are not rare. I have personally collected a number of them, different as they were in the nature of their lesions and of their severity. In sinuses of horses have been found *cysts*, *myxomas*, *fibrous polypi*, *sarcomas*, *epitheliomas*. Let me mention to you a few clinical facts which will give you an idea of the symptomatology, progress, and seriousness of these tumors; and which will show you to what extent operating interference is justified.

Let us see the cysts first:

In 1891, a Percheron horse, seven years old, was brought to

\* Clinical Lecture of Mr. Mesnager, fourth year student.



the clinic for a discharge from the left nostril of two months' standing. This discharge was thick, grumelous, offensive and dirtying to an extreme the left nostril. There was a small multilocular gland on the left side of the intermaxillary space, not adherent. The external plate of the sinus was slightly bulging, painful to pressure, and dull to percussion. We diagnosed a purulent collection of the sinuses. The animal was left for treatment. After trephining, we were surprised to find the mucous membrane of the inferior maxillary sinus thick and infiltrated. The finger, introduced in the cavity, discovered that it was covered with a large number of soft, spherical, somewhat confluent tumors. The mucous membrane of the frontal and superior maxillary sinus was thickened by the inflammatory process, but was free from the lesions found in the other sinus. The teeth were normal, the maxillary bone was not involved and the septum that separates the two maxillary sinuses was intact.

Trephining over again in another spot, I then cut through one of the tumors with the bistoury and allowed the escape of a thick viscous fluid. The case was one of a cyst, developed in the mucous membrane, probably at the expense of some of its glands.

After washing the sinuses, I enlarged the opening of the inferior maxillary sinus, removed the mucous membrane entirely, cauterized the surface with the thermo-cautery, and then treated the horse as one affected with simple purulent collection of the sinuses; daily washing of the cavities with a slightly antiseptic solution, and afterwards astringent solutions. The drain tube was removed after a month, a tent of oakum introduced into the trephined part to prevent too rapid closing. The animal was submitted to light work, and two weeks later was entirely recovered.

*Mucous* cysts of the sinuses are rare. This is the only case I have seen in fifteen years' experience, and few others are recorded.

Not less rare are the *dental cysts*, of which Liautard gives the following interesting example: After an attack of influenza a

sixteen-year old mare, discharges abundantly, has a small gland, and an abnormal bulging of the right side of the face. A veterinarian believes the animal has glanders. Liautard disagrees and diagnoses a simple collection of the sinuses. The teeth were normal; there was no lesion of the buccal mucous membrane. The inferior maxillary sinus is trephined, and three dental cysts are found, each containing a hard, movable body, of the consistency of enamel; a rudimentary tooth, similar to those met in the cysts of the temporal region. The extraction of the teeth and the ablation of the cysts were followed by a rapid recovery.

Though our records are poor in observations relating to cysts of the sinuses, it is certain that numerous practitioners have seen them, have employed the modes of treatment we have just mentioned and cured their patients.

This first group includes lesions which remain limited to the sinuses and are manifested only by the symptoms of the suppurative inflammation of these cavities, which at a later period comes to complicate the fact of their presence.

*Myxomas* and *fibrous polypi* form two other varieties of tumors of the sinuses which are not much more serious than the preceding, when they are recent and limited to one of these diverticulums only. Fibrous polypi, however, are in general more serious than myxomas.

Both start ordinarily from the ethmoid or the floor of the sinuses; they grow rapidly, press against the bony plates, principally the external, spread to the corresponding nasal cavity, and may assume there large dimensions; give rise to special symptoms, interfere with respiration, produce a *nasal roaring*, and even bring on death by asphyxia.

Trasbot has published a curious case of this nature. A mare, of Mecklenburg breed, had an intermittent running on the left side of six months' standing. This discharge is muco-purulent, striated with blood at times. A tumor of the sinuses is suspected. The running at the nose increases, the maxillary ganglions are swollen, the animal roars loudly when at work.

Another examination revealed nothing, neither in the nose nor in the mouth. The roaring becomes louder and louder, to stop only when the animal is at rest in the stable. Soon difficulties of deglutition appeared, salivation is very abundant. One morning the mare is found dead in her box. Post-mortem explained these singular phenomena. The tumor, starting on the ethmoid, was formed of two well-distinct parts, one filling partly the frontal sinus, without adhesions to the walls of this cavity; the other had grown along the superior turbinated bone in the nasal cavity and had developed considerably; it had passed through the guttural opening of the nasal cavities, through the pharynx, and at last reaching the larynx, had entered into it, obstructed it, and killed the animal. The histological study of this tumor showed that it was a myxoma.

With its narrow base of implantation on the ethmoid, its excision would certainly have been easy.

Labat, in 1888, and Moussu, in 1893, have each related a case of tumor of the sinuses with ablation, followed by success. Labat's patient was eight years old. The superior maxillary and frontal sinuses of the left side were the seat of a polypus growth which deformed the wall. A triangular piece of the external plate of the superior maxillary sinus, measuring 7x9 and 10 centimeters, was removed. The tumor, which was inserted on the floor of the sinus, was removed *in toto*. The wound of the bone diminished considerably, but never healed entirely.

The mare operated upon by Moussu was seven years old. The superior and inferior maxillary sinuses were filled with a tumor, which had thinned down and perforated the external plate of the bone. The internal plate of the superior maxillary sinus, as well as fractions of the nasal, lachrymal, and zygomatic were destroyed. The skin dissected around the tumor, an opening 15 by 12 centimeters was made through the bones of the face, the tumor removed in two sections, and it became necessary to extirpate a part of the internal wall of the sinuses and of the upper turbinated bone, thus leaving exposed the roots of the

three last superior molars. In two months these were all covered, the wounds granulated well, and the animal returned to its work. The tumor was a myxo-sarcoma. It did not return.

The facts that I have observed make me consider *sarcomas* of the mucous membrane of the sinuses as quite rare. And yet we meet them now and then. Some of you may remember a case brought to one of our clinics last year which I ordered destroyed on account of sarcoma of the superior maxillary and of the sinuses. When this patient came to us, he had on the left side of the face a hard tumor, diffused, almost painless and without complications of the lymphatic glands. He had a mucopurulent discharge of the left nostril. Examination of the mouth revealed a raising of the mucous membrane along both edges of the molar arches. The animal was worn out and killed for the butchery. The autopsy revealed that the sinuses of the left side were partly filled by the tumor.

There is another frequent and extremely serious form of tumors of the sinuses. I refer to *epitheliomas*.

Among the published observations, you may read with interest those of Trasbot, Barrier and Benoit. They are almost all alike. The history of a few patients that I have seen at our clinics will give you an exact idea of the characters and gravity of these tumors.

Towards the end of last year, a gelding, ten years old, was shown to us; he had been bought a few days before. He ate slowly, the cheek was tumefied and the owner thought his teeth were sharp and needed filing. The general state of the horse was fair, yet there was a certain amount of dullness and of apparent suffering. The attention was specially attracted by long threads of saliva flowing from his mouth, which, when carefully examined, revealed the nature of the affection, which was very different from that suspected by the owner. There was a large tumor in the buccal cavity, grown on the palatine arch, alongside the left molar arch. It was protruding slightly under the mucous membrane, which allowed us to define its anterior

boundary, which extended as far as the second molar. Other peculiarities were also detected by opening the mouth with a speculum and throwing reflected light into it. The last left molar, partly covered by neoplastic granulations, on both sides, were loose. The projection formed by the tumor was principally well marked on the level of the molars. Upon the greatest part of the palatine arch, it was scarcely visible, and the mucous membrane seemed simply covered with a kind of granular membrane. Light thrown into the nasal cavity showed its floor deformed, bulging, with the mucous membrane pushed aside by the tumor. This had started on the mucous membrane of the mouth, or at the interior of the maxillary; and in this last supposition had made its principal development in the mouth. Another important symptom was also noticed, which consisted in a double adenopathy, which left no doubt as to the nature of the disease. The maxillary ganglions on the right side formed a bosselated, very hard mass, as big as a nut, adherent to the deep tissues, but not to the skin. Those of the left side had the size of a pigeon's egg, also irregular and very hard. The diagnosis of *epithelioma of the maxillary* could not be doubted. The animal was incurable. The owner sold him and we lost sight of him.

Here is another similar case, observed in January, 1891. A twelve-year-old gelding, was presented at the clinic with the following history: Three months ago, it was observed that his face was slightly swollen, mastication had become difficult, and he had an offensive odor discharging from the right side. On the right lateral side of the face the swelling was diffused, quite hard to pressure, a little painful, extending from the anterior extremity of the maxillary spine upwards, down to on a level with the first molar. The maxillary glands of the same side were affected. They formed a very hard tumor, bosselated, elongated in the direction of the axis of the head, movable under the skin and but little adherent to the tissues under. From the right side flowed a greyish, foetid discharge. In the nasal cavity, by spreading the nostrils open, a greyish tumor was seen, filling



it interiorly, projecting between the turbinated and coming downwards. Examination of the mouth showed, on the palatine arch, alongside the right molar arch, a reddish granulating surface, which, towards the middle of the cavity, occupied nearly half of the palatine arch. The gingivo-labial fissure was partially filled with granulations and putrified food. A reflector placed between the dental arch and the cheek revealed that the teeth were loose in their destroyed alveolar cavities. You see how extensive the lesions were and yet the swelling of the face was relatively small. A diagnosis of *incurable tumor of the maxillary* was made. The microscopical examination of a portion of the neoplasm, taken from the palatine arch, near the second molar, confirmed the diagnosis. It was a tubulated *epithelioma*. The animal was sold for the butcher, and we obtained his head to examine its condition. The tumor had destroyed almost the entire structure of the superior great maxillary, the anterior part of the palatine and a portion of the turbinated. It filled the middle and a portion of the superior third of the nasal cavities as well as both maxillary sinuses. The third and fourth molars were completely loose, the second, fifth and sixth were scarcely attached in their alveola. The glandular lesions were very characteristic; their characters under the knife were those of the tumor.

Let us now consider the case before us.

Upon a gelding, Anglo-Norman, twelve years old, some six months ago, there appeared on the left superior maxillary a swelling, which gradually became more marked. A veterinarian called to see it, considered it a traumatic lesion and prescribed some treatment, which gave no result. The swelling kept on growing, mastication became difficult, from the left nostril and from the mouth came a very foetid odor. The animal was brought here. What called the attention at first was the asymmetry of the face. The muscles of the face were atrophied; the mass of the masseter, originally somewhat prominent, was entirely gone, the cheek appeared excavated. On a level with the superior maxillary, between the zygomatic process and the

suborbital foramen, there was a tumor well defined, as big as a fist, evenly hard, except in the centre, where the skin was ulcerated and where was seen protruding a large fleshy granulation. The skin was adherent to the tissues underneath. No œdema all around. The exploration of the diseased region was painful and the animal resisted it. From the left nostrils ran a clotted, foetid liquid, increasing by exercise. The glands of the maxillary space were hypertrophied, slightly indurated, painful, movable on the deep tissues and not adherent to the skin. A foetid odor came out of the mouth. When this cavity was opened, on the left side the gingival mucous membrane was destroyed, covered with granulations, swollen alongside both alveolar borders. The second, third and fifth molars were loose and implanted in soft tissue. On each side of the dental arch there were two fissures, gutters like, where putrified food accumulated. The fourth molar had dropped from the mouth and was replaced by a fungus granulation. The animal was thrown and chloroformed for more minute examination. By trephining in three places over the face, on the centre of the tumor, a large opening was made, which exposed the destruction of the greatest part of the maxillary bone and the roots of the molars, whose alveoli had lost their bony walls. The second and fourth molars were removed with the hands.

The diagnosis was simple. It was a tumor which had destroyed most of the superior maxillary bone, filled the sinuses and perforated the palatine arch. Microscopical examination showed that it was an *epithelioma*. The animal was destroyed.

The post-mortem showed that no secondary tumor existed in the viscera. The superior maxillary was not entirely destroyed. The first molar was the only one that remained attached. A slight traction on the fifth and sixth permitted of their removal. The neoplasm projected but little on the palatine arch, yet was destroyed in most of its left half, from its posterior border to the first molar.

You will observe that these three cases are very similar. The differences between them is only as to the extent and seat of the

lesions. They all are due to a tumor of a similar nature, a like origin, an epithelioma which has started in the thickness of the maxillary. It is true that all epitheliomas of the face and mouth do not start at the same point. It is probable that some begin on the buccal membrane or that of the sinuses; those of the latter are less frequent in horses. Those which are most observed in these regions have the maxillary bone for starting point and are no doubt developed at the expense of the epithelial centres loose in the bones, and rising from the dental structures. At a given time, under the influence of causes, still unknown, the cells which constitute these centres proliferate abnormally and make in the bone a cavity, which gradually opens either in the mouth, in the sinuses, most commonly in both, the diseased process invades the bone, destroys the walls of those cavities as well as the dental alveola. The tumors are called *terebating epithelioma* of the *maxillary*. Even in the cases where the disease is observed early, at the moment where the buccal mucous membrane ulcerates, for instance, already the maxillary has undergone an extensive destruction through its structure and alveolar borders, and yet but little deformity of the face exists.

*Be careful of not basing your prognosis of the tumors of the region of the face from the size of the swelling or the bulging of the bony plate. While these epitheliomas of the maxillary, scarcely visible, are of the most severe nature, benignant growths, covered by the mucous membrane of the sinuses may push against the external table of these cavities, thin it out, raise it and perforate it, right through the skin, and yet these last benignant tumors may be successfully operated upon.* The animal is anæsthetized, the sinuses freely opened—most ordinarily both maxillary—and at one or several seatings, the neoplasm is removed, the hæmorrhage being controlled by plugging or with the cautery. With malignant tumors, such operations are not to be performed in our surgery.

I will now resume the practical indications of my remarks :

*Tumors developed on the mucous membrane of the sinuses*

*and which as alterations upon the bones have only raised them or steadily pressed upon them for some time, are curable; they must be extirpated, if the patient is worth it.*

*When it is an invading neoplasm, which has partially destroyed the walls of the sinuses or reached the dental alveoli, without, however, reaction upon the lymphatic glands, most always it is a case of osteosarcoma; leave it alone.*

*When one is in the presence of a tumor with ganglionic metastasis, it is a malignant epithelial tumor that often cannot be operated upon, and which always residivates, if ablation is attempted.*

To conclude, it is proper, to preserve for animals as well as for men the denomination of *malignants* to those tumors which have a rapid growth, invade surrounding tissues, bones and soft tissues, to those especially which extend to the lymphatics and those which assume the aspect of infectious processes.

## CONTAGIOUS DISEASES IN KANSAS.

BY DR. GEO. C. PRITCHARD, TOPEKA, KAS.

A Paper read at June meeting of the Missouri Valley Veterinary Association, held at Leavenworth, Kas.

MR. PRESIDENT AND GENTLEMEN:—The subject I have briefly outlined in this paper, is, I think, of vast importance to the general public; and should be agitated until the people have become sufficiently educated, with reference to the nature and spread of contagious and infectious diseases of domesticated animals, to fully realize the great importance of placing strict regulations around those engaged in handling the same.

We have already ample protection (if the law is properly enforced) with reference to Texas fever. But when we consider the great ravages of hog cholera and swine plague, bovine tuberculosis, glanders, farcy, chicken cholera, equine and canine distemper, and so on through the whole list of contagious and infectious diseases of animals from which the country is seldom if ever free, one marvels at the ignorance and the indifference of the people in preventing the spread of these diseases.

I have watched intelligent and prosperous farmers in outbreaks of equine distemper, for instance, employing a veterinarian in whom they had the utmost confidence, and that veterinarian would explain the great necessity of isolating the sick from the well, and placing the sick under the best sanitary surroundings, all of which would be listened to with profound respect and apparent interest; but upon the next visit the same conditions would prevail, with perhaps the difference in favor of the unhygienic. But all of you are more or less familiar with these conditions, and it is needless for me to take up our valuable time respecting them here. I wish in particular to speak of hog cholera and swine plague, because I am satisfied that the State of Kansas has lost more money through the different forms of hog cholera than from all the other contagious and infectious diseases of animals combined; and yet, how vastly different are the laws of Kansas, in dealing with the infection of hog cholera, when compared with those of Texas fever. For instance, with a small outbreak of Texas fever, in any community in the State, the greatest excitement will prevail; all the farmers in a radius of ten miles will come flocking in to make an investigation (which by the way is all right they should). The investigation will probably develop the fact, that the infection was brought in by some innocent party, who had purchased the cattle from some parties living outside the State. Perhaps the fever is in a mild form and there is not the least danger of its spreading; no matter, every farmer in that community would have that man's property confiscated; they want not only the cattle placed in quarantine, but the most of them want a job taking care of them; they would have, if possible, a man to every head of cattle to guard them, and no matter what the costs are, the poor owner has no sympathy.

I have in my mind an object lesson: two years ago the Gillespie Commission Co., of the Kansas City stock yards, purchased 120 head of cattle from a bunch shipped in from California, and as California at that time was generally supposed to be free from the infection of Texas fever, no precautions were taken



whatever against the infection, and in a short time an outbreak of Texas fever occurred, and I, as State veterinarian, was wired to come immediately and make an investigation. The cattle were in Russell County, Kansas, and the sheriff had a large body of men to guard them, although the cattle were in a pasture fenced in with a wire fence, and one man would have been ample security to that community that the disease would be kept confined to the pasture they were in. There was perhaps five or six dead cattle, possibly four or five that showed signs of the fever. I placed the cattle under temporary quarantine and notified the Live Stock Commission, who, after a thorough investigation, sustained the quarantine, and prescribed such regulations as was usual at that time, and at the same time tried to satisfy the community that the infection would be kept confined entirely to the pasture they were in; and in fact there was not the least danger of its spreading under the regulations adopted by the board. However, the people were not satisfied, at least pretended they were not, and took the matter into their own hands, placed a large number of men to guard the cattle, built a corral in which the cattle were placed at night, bought hay with which to burn the dead cattle. I remember one itemized bill was hay, \$5.00; hauling and burning cattle, \$16.00, and so on; it was really remarkable the schemes those people devised to run up bills against those cattle. Now of course the bills had to be brought before the Live Stock Sanitary Commission and allowed, and assessed to the proper parties. This was done, but the board saw fit to cut down the bills some 200 per cent.; of course, this did not suit the people in Russell County; the owners of the cattle were going to get away with two or three cattle left, after paying the bills at the figures the board had allowed, and this would never do. The sheriff of the county accepted the money, upon the basis allowed by the board, but when he returned to Russell County the people would not allow the cattle to be moved unless the full amount of the bills was paid; they ignored the Live Stock Sanitary Commission's orders to turn the cattle over to the owners, and the County

Attorney ordered the sheriff to continue the quarantine until the full amount of the bills was paid. In the meantime the daily increase of the bills was fast eating up the small bunch of cattle, and Messrs. Gillespie, to save anything out of their misfortunes, were obliged to pay the full amount of these exorbitant bills, which was something like six or seven hundred dollars.

Now, all this trouble and expense was made over a mild outbreak of Texas fever, when the mortality scarcely reached 10 per cent., and when the infection was confined to a comparatively small enclosed pasture. I only cite these cases to show the intense interest the people take in an outbreak of Texas fever, and how much feeling there is against the party bringing into the State the infection. But what will the same people do in an outbreak of hog cholera? Let us see. In nearly the same locality of the State, I was called two years ago to make an investigation in an outbreak of hog cholera; I found the cholera was in an aggravated form in a small herd of perhaps fifty or sixty hogs and pigs. The mortality reached nearly 90 per cent. Upon inquiry I learned that one of his neighbors had a short time before shipped into the neighborhood a car-load of hogs from the Kansas City stock yards. Of course the man that shipped in the hogs soon had the cholera and in a few days spread all over the neighborhood. Now there is nothing remarkable in this case, it's a daily occurrence in Kansas (at least has been); the point I wish to make is that not *one* of those farmers in that community had one word to say against the man that had brought in the infection; all seemed to think the cholera was something that could not be avoided, and accepted the situation as best they could.

A good many of the farmers are getting cunning of late; upon the first symptom of cholera their hogs are loaded into a car and shipped to market, and nothing said about it. There seems to be so many ways by which the infection of hog cholera can be conveyed, that it would appear at first thought to be almost beyond control; but once the people are educated up to a thorough understanding, as to the infection, the many ways by

which it is conveyed from one place to another,—a long step will have been taken towards its control ; and right here I wish to state that the Missouri Valley Veterinary Association has been instrumental in making one very important change in the laws of Kansas with respect to the control of hog cholera. No doubt some, if not all of you, will remember at the meeting of this Association at Topeka two years ago, a resolution was adopted and presented to the Live Stock Sanitary Commission and the Legislature, asking them to pass a law prohibiting entirely the shipment of hogs from any public stock yards into the State of Kansas. As a result of that resolution, the Legislature repealed section 22, special session laws of 1884, which did not include hog cholera under the head of contagious diseases, and by the repeal of said section the control of hog cholera was brought under the jurisdiction of the Live Stock Sanitary Commission, and that board a short time ago asked me to draft a rule to be included in their rules and regulations for 1896, which declared a quarantine against the shipment of hogs from any public stock yards into the State of Kansas. This rule was adopted by the board some time in May, and is in force at the present time. That one resolution of the Association will do the State of Kansas more good, and save the State more money than any one act ever passed by the Legislature of the State of Kansas. And, gentlemen, I feel that had we not passed that resolution and presented the matter in its true light at that time that nothing would have been done by the Legislature. Therefore, we as an Association are entitled to no small amount of credit for this step taken in the right direction toward the control of hog cholera. This also shows us how immensely important our influence can be for the public good, and should stimulate us to study these live sanitary issues, and devise means to bring them before the public ; this I consider a part of our duty as veterinarians. For who are so well qualified to do this as we ? Now that this disease is placed under the control of the Live Stock Sanitary Commission, with good live men to compose that board, men that are up to date in all sanitary

measures, and with force enough to see that the law is complied with in every particular, I am fully satisfied that from 50 to 75 per cent. of the outbreaks of hog cholera can be prevented ; and if this is a fact—which can be fully demonstrated with a trial—it will not only save the State millions of dollars, but will place the industry of raising swine upon a comparatively safe basis, thereby stimulating that enterprise to a marked degree.

Railroads should be compelled to thoroughly disinfect all cars before swine are received for shipment (excepting those shipped for immediate slaughter), also all their shipping pens ; and right here I wish to say it is one prolific source of hog cholera. For instance, some one within the interior of the State, goes to another point within the State, to buy a car-load of hogs, and of course loads them at the nearest shipping point ; perhaps a car-load of diseased hogs has been recently shipped from those very yards, and thus he brings his hogs directly in contact with cholera infection, and if the profits on that car-load of hogs would buy him a blue jean shirt in the fall, it would be a very strange circumstance indeed. Of course, he will say, "it's just my luck," but, gentlemen, luck has nothing to do with it ; it's only a blundering way of doing business, which hundreds are doing daily in the State of Kansas. But the party shipping the hogs is not the only one to suffer, his neighbors' interests are jeopardized, perhaps a whole community will be compelled to see the profits of a whole year's hard labor swept away as a result of this loose, indifferent way of transporting swine over the State.

Now, I believe in educating the people, as I said in the beginning of my paper ; but, there is now and then a man who don't like to have too many new ideas thrust at him at once ; he had rather do as his father did forty years ago ; he don't believe in the germ theory very much anyway ; and, by the way, these fellows generally lay it all to their *luck*, when they have a misfortune of any kind ; now, to stop to educate a man of this kind, life is too short, there is too much to do, and the quickest and best way to educate these fellows is to pass laws governing the

transportation of swine throughout the State ; and then see that the law is enforced. The public's interests demands this, gentlemen, and we must be the agitators.

There is one other contagious disease that is a great menace to the live stock interests of the State, that the people are very indifferent about, namely, bovine tuberculosis ; but, as our collaborer, Dr. McCurdy, has a paper upon that subject, it is needless for me to say anything with reference to that disease. The other contagious and infectious diseases mentioned in the beginning of my paper, of course should receive a good deal of attention at the hands of the sanitary officers ; but their importance is so insignificant, when compared with the two mentioned, namely, hog cholera and bovine tuberculosis, that I hardly think it worth while to give them any extended notice in this already long paper.

Thanking you all for your kind attention, and with a wish that we may all live to see the day that the contagious diseases of domesticated animals will be under the complete control of our sanitary officers, I will close.

THE following-named Western members will have papers for the coming meeting at Buffalo, and several others have said yes with a proviso : S. B. Nelson, Washington, "Nail Wounds of the Foot" ; T. A. Peters, Nebraska, "Serum-therapy in Hog Cholera" ; N. S. Mayo, Kansas, "Some Poisonous Stock Foods" ; A. E. E. Grange, Michigan ; M. H. Reynolds, Minnesota, "Cathartics" ; L. A. Merillat, Illinois, "Veterinary Dental Surgery" ; F. Braginton, Indiana, "Dairy Inspection" ; D. S. White, Ohio.

The U. S. V. M. A. at the Des Moines meeting passed a resolution by an unanimous and hearty vote to the effect that reports and papers read at future meetings should not exceed 30 minutes, unless special consent be given by the members present. There seemed to be a general feeling in favor of short, concise, and practical papers rather than exhaustive historical dissertations.



[WRITTEN SPECIALLY FOR THE AMERICAN VETERINARY REVIEW.]

**DAIRY BACTERIA.**

BY A. S. HEATH, M.D.V.S., BROOKLYN, N. Y.

Not only are there a larger number of bacteria in May and June, but they also differ in number in different cows. Professor Conn tested the milk of eight cows in one stable several times: In two of the cows the milk contained per loopful (a loopful is a drop about the size of the head of a large pin) 250 bacteria per loop, while the milk from a third contained 20,000, and a fourth 60,000 in the same quantity of milk. There are no bacteria in the milk-glands, but there is some external favoring condition in the milk ducts and individuality of each cow to produce bacteria. This being the case, it may be found that breed of cow may also exert a favoring influence in the production of bacteria, as the largest number of bovine bacteria in milk or cream gives the finest flavor and aroma to butter. The species of bacteria may be numerous.

Prof. Conn found about 70 species of dairy bacteria. Milk, then, may be said to have a bacterial flora. But these are so minute as to make it extremely difficult to define bacterial species. But those producing acid, or souring of cream, gave the flavor and aroma of the butter, while those causing alkaline cream were those causing decay, and bad flavor. Acid bacteria produce no spores or seed, and a temperature of 158 F. destroys them, while alkaline bacteria do produce spores which are not destroyed at a temperature of 158 F., and continue decay. This is a serious argument against sterilized or pasteurized milk for human food.

The inoculation of cream with acid and flavor and aroma-producing bacteria prevents the baneful effects of other species by doing their work quicker and better, thus shutting off the bad effects of alkaline or decay-producing bacteria.

"Bacteriologists have for some time known that different species of bacteria may thus have a repressing influence upon each other. *It has been determined, for instance, that the growth of the normal bacteria in milk prevents the growth there*

*of the cholera bacillus, although the cholera bacillus will grow readily in milk that has been sterilized"* (Conn).

The generality of the flora of dairy bacteria are helpful, or harmless, while but few are baneful or disease-producing. It is therefore desirable to get milk fresh from healthy cows, at the earliest time possible, as no bovine or baneful bacteria come from healthy cows, fed on sound food and pure water in hygienic environment. Even clean, pure milk, should be kept at a low temperature, as bacteria do not grow under such conditions.

## REPORTS OF CASES.

### TUBERCULAR DISEASE IN THE HORSE.

By W. F. DERR, V. S., Wooster, Ohio.

On Dec. 6th, 1895, I was called to see a large brown horse, by a man that makes it his business to feed and prepare horses for the Eastern markets, for the reason that he was not doing well.

*History.*—"I bought him early in the fall, with a lot of other horses that had arrived from the West. He had a cough at the time of purchase, and was somewhat thin in flesh, with but little ambition about him; but I thought that he was probably breeding some form of distemper. I treated him some for his cough, and general condition, from which treatment he seemed to improve some. I put him to some light work during the latter part of October, but he seemed to become fatigued on the least exertion, and at times would not be dry in the morning, after having performed an ordinary day's labor. His cough is more troublesome than it was, does not lie down to rest, his appetite is fastidious—at one time good, at another, indifferent, never quite lost, however; his spirits, like his appetite, are one day good, the next day or two, depressed; shifts around on his legs a good deal, and seems to have a tired feeling." Such was the history the owner gave me.

*Examination* revealed the following: Pulse 60, temperature 104, respirations 28, visible mucous membranes injected, slight discharge from the nose, enlargement of the submaxillary glands, right lung elicited nothing abnormal from percussion, and auscultation, half of the left lung solidified, eyes looked

dull, with a slight conjunctivitis, coat had lost its lustre, bowels and urinary organs in a normal condition.

*Treatment.*—Applied mustard over the left side, and prescribed the following:—

R. Fl. Ex. Nux Vomica, 3 ii,  
 “ “ Digitalis,  
 “ “ Belladonna, āā 3 iii,  
 Sp. Nitrous Ether, 3 v.

Mix. Sig. One tablespoonful, every four hours, in a little water, with syringe.

On Dec. 8th, I found my patient somewhat better; appetite had improved; pulse stronger and 54; temperature  $102\frac{3}{4}^{\circ}$ ; respirations 26. I made an addition to the above treatment of 40 grains of quinia to be given with every other dose of the above prescription. Owner reported on the 9th that he was better, and improving. Continued the same treatment every six hours, with quinia night and morning.

On the 11th I had a telephone that the horse was worse; the weather had changed from warm to cold, with some rain. Being in a very comfortable stable, free from all drafts, with good ventilation, I laid the cause to the change of the weather. While the pulse and temperature had not made much of a change, the left lung had become more solidified, his respirations 32, not at all laborious, appetite had again become impaired. I prescribed eggs with his other diet, which he took readily, and gave the same treatment I had been giving before, so that in a few days he seemed better again. On the 16th he again had a relapse. Patient was weaker, with œdematous swelling of the chest, abdomen, and legs, and a very troublesome cough of a painful nature, with a pulse of 70, temperature  $104\frac{1}{2}^{\circ}$ , respirations 34. I again applied stimulants to both sides, also increased my stimulants internally, so that by the 22d he again was on the road to improvement. I saw him again on the 25th, when his pulse was 55, weak, with some irregularity; temperature  $103\frac{1}{4}^{\circ}$ , respirations about 30, with complete loss of appetite; cough very distressing, casts up considerable mucous from nose and mouth in coughing. I again told the owner that my prognosis was unfavorable, as I was satisfied that should he even make a recovery it would be with part of the left lung useless. He again had a relapse on Jan. 2, which revealed some dullness of the right lung and bronchial breathing of the left lung, at the superior surface of the chest. I made but little change in the internal treatment, none external; his surroundings were as good

as they could be made ; told the owner that he might expect him to die most any time. On the 10th, a foetid diarrhoea set in, which carried him off on the 12th, when I had a telephone to come and hold a post-mortem on the cadaver.

*Autopsy* was held about eight hours after death. On removing the whole of the left side, I found the body fairly well preserved, considering what he had suffered. There was but very little fluid in the chest ; left lung broken down to about one-third, which was studded with millet-seed tubercles ; diaphragm and pericardium were thickened and studded with the same ; mediastinum, anterior and posterior, were in the same condition, with the exception of several large clusters, from very small to the size of a hazel nut ; right lung covered with these. Small tubercles ; pleura, covering the ribs were in the same condition, only not quite as thick as the diaphragm and pericardium ; liver of a leaden hue, and friable ; the alimentary tract was free, as well as the liver, from all tubercular deposits.

It seemed strange to me that I did not find the same tubercular deposits in the mesentery when there were such masses in the thoracic cavity. I am sorry I neglected having a microscopic examination made to determine whether there really existed the bacilli of tuberculosis. With an experience of 24 years, and with a great many post-mortems held on animals that had died from diseases of the respiratory organs, I have never seen a case like the above in the horse. I have given a history and autopsy of the case, for the simple reason that I find but very little literature on the subject of tuberculosis in the horse.

#### INSPISSATED BILE IN BILE DUCTS.

By GERALD E. GRIFFIN, Vet. 5th Cavalry, Fort Sam Houston, Texas.

At 5 P. M., on November 1st, the Farrier Sergeant of Light Battery F, Third Artillery, reported a bay gelding, 15.3 hands high, fourteen years old, used as a wheel horse on a gun, as being sick. The animal was considered as one of the best in the battery, was never on sick report since his entry into the service (about eight years previous), and always fed and drank well, and had regular daily exercise, except on Sundays ; the animal was observed standing in his stall, with head hanging down and looking very much dejected. On examination, temperature was found to be 104.4° F., pulse 65, respiration only slightly above normal ; faeces normal in color, but dry ; urine not observed, but evidence of recent passage in stall ; ration of oats in feed box still untouched, and nibbling a few spears of

hay in a listless manner ; visible mucous membranes normal in color, secretions from salivary glands scant, eyes dull, coat looking well ; on first seeing animal was resting on off hind toe ; concluded animal was suffering from an attack of malarial fever, which was prevalent at the time among the horses in the garrison. Directed the sergeant to give him sulphate quinine, 3 ii, and that he be given ten drops of tincture of aconite hourly for six hours. Visited patient following morning, temperature 102.2°, pulse 53, fæces normal, but dry ; ate hay ; directed that he be given a small bran mash, and that a bucket of water be constantly kept before him, the first bucketful to contain nitrate potash, 3 i ; ate sparingly of the mash and played with the water. Saw animal at 5 P. M., temperature 102.8°, pulse 50 ; eating hay, had drank considerable water, urine plentiful, and high colored ; no fæces in rectum ; directed that he be blanketed, furnished plenty of water, be fed bran mash and that he be again given sulphate quinine, 3 ii. Next morning temperature 101°, pulse normal, respiration the same, fæces passed during night still dry, evidence of plenty of urine in stall. Same evening, temperature and pulse same as in morning, ate sparingly and drank but little ; directed that quinine, 3 ii, be again administered. Following morning, temperature normal, refused bran, but accepted half feed of oats. Same evening, animal doing well ; directed that he be kept on sick report a few days, and then returned for duty. For the next four days was turned out in battery paddock for exercise, looked well, but was still slightly off feed, which was ascribed to quinine. On the second day after the animal returned to duty, was taken out with battery for inspection, and was not exercised very much ; reported as being all right at "stables" at 5 P. M. of that date ; the following day at 1.30 P. M. sergeant reported animal as being very sick and acting strangely. On visiting him, found him standing in a narrow stall with a very alarmed look in his eyes, sweating slightly, frothing at the mouth, and presenting a slight abrasion of tip of tongue. Animal very stiff and difficult to move.

On examining in light, found pupil very much dilated, pulse thready and jerky, temperature normal, fæces in rectum normal and soft, but dry, trembling considerably in front, flexors of fore limbs appeared to be weak, hind legs seemed to be moved with a little difficulty, but feet not dragged ; on being led to the watering trough animal did not see it, but when head was pulled down tried to drink, but experienced considerable difficulty in



swallowing, apparent spasm of pharynx; on the hands being suddenly brought together with a noise animal would start as if he were a recruit and had just heard the report of a gun. After a thorough examination found nothing on which to base a diagnosis, when visions of rabies began to assert themselves, but the history of the case did not lead in this direction; there being no diagnosis, there was consequently no treatment, but animal was turned loose in the paddock and developments awaited. On being turned loose patient wandered around for a short time aimlessly, and then took up the trot; at this gait he went to the farthest end of paddock, about 100 yards, turned around and bore down on a "trot out" gait directly toward a small group of spectators, who, thinking that discretion was the better part of valor, immediately hunted their holes. Animal stopped short, however, took up the walk and meandered around as before, except that now he continued to move in large circles, and invariably to the right, and this was continued for over one hour, when darkness coming on he was left to develop alone, while we worried ourselves over text-books that never give any assistance when you get out of the beaten and much traveled trail, studded with drenches, balls, sedatives, alteratives, tonics and stimulants. While we were admiring that work of art, the index to "Williams' Equine Pathology," we were startled by the news that our patient had broke through two strong fences and was spurning the dust of the parade ground on the gallop, while a number of artillerymen were trying to head him off. He was finally secured and placed in the riding hall, where he was locked up, but, fearing he might climb the fence, which he tried to do, he was tied with a stout rope and thus remained until the following morning. By this time the case was diagnosed all over the garrison as "rabies," "mad staggers," "inflammation of the brain," not forgetting "bots." On visiting patient, he looked as if he had aged rapidly during the night, pupil still dilated, pulse quick and thready, but weak, temperature 103.1°, mouth dry, mucous membranes blanched, trembling, flexors very weak and slight dragging of hind feet; animal very quiet. By this time, we were completely "up a tree" as to the disease; had animal placed in a loose box stall, and reported the matter to the regimental commander, who directed that he be shot if necessary. On consultation with the battery commander, we decided to watch the case for a few hours. On being placed in a box stall the animal placed his chin on the edge of the box and bore down so heavily that he lacerated the skin on the inferior portion of

inf  
left  
enc  
tin  
feet  
but  
unt  
foll  
a pe  
food  
side  
no a  
brai  
tina  
whic  
pear  
pres  
men  
with  
semb  
and c  
progr  
until  
disap  
iary p  
ductu  
same  
served  
tine a  
of the  
had m  
knife i  
darker  
firm an  
conditi  
a smar  
the org

Cas  
was stir  
ing cop

inferior maxillary; finally he lay or threw himself down on his left side, pressed his forehead against the side of the stall and endeavored to bore a hole through with his head; this he continued to do all day, with an occasional struggle to regain his feet; pulse became weaker and more frequent, respirations were but slightly disturbed, and temperature remained at  $103.1^{\circ}$ , until death occurred at 10 P. M. The post-mortem was held the following morning at 9:30. Body in good condition, but emitting a peculiarly disagreeable odor; stomach contained very little food, but this in a fluid state; small intestines contained considerable ingesta, as did also large intestines, all well digested; no appearance of inflammation; appearance of spinal cord and brain normal, as were also kidneys and bladder; all of the intestinal organs were normal, with the single exception of the liver, which presented the following conditions (not weighed but appeared to be about eleven to thirteen pounds): Glisson's capsule presented only very slight indications of inflammation; commencing at the ductus choledochus the hepatic ducts were filled with small round balls of a brownish-yellowish substance, resembling very much the excrementitious fecal matter of a goat and of about the same size, except that they became smaller as progression was made in the direction of the origin of the ducts, until they reached the size of a number one shot, and finally disappeared, to be replaced, however, by a sticky kind of bilious paste, having the characteristic color of bile. Neither the ductus choledochus nor the juncture of the pancreatic duct with same showed any inflammation or obstruction that could be observed, and the common entrance of both ducts into the intestine appeared to be perfectly normal. A detailed examination of the portal vein and hepatic artery could not be made, as we had made the usual error in dissecting the parts by using the knife indiscriminately. The organ as a whole appeared to be darker and more congested than is usual after death, but was still firm and healthy. It is thought that the animal died from the condition of the liver described, and the question arises, would a smart cholagogue cathartic have had any beneficial effect on the organ, if administered?

#### TWO CASES OF PERSISTENT HYMEN.

BY GEORGE N. KINNELL, V. S., Pittsfield, Mass.

*Case No. 1.*—An aged roadster mare, of no particular breed, was stunted to a French coach horse, Prince D'Or. On attempting copulation the penis would not penetrate more than a few

inches, when the mare would commence cringing more than they usually do, and the stallion, screaming, would rear up and dismount. Manual examination revealed a persistent hymen in the form of a strong fibrous cord. Dilatation of the vulva with the hands, and moderate traction on the cord, readily brought it into view, when it was seen to consist of white fibrous tissue, to be about two and a half inches long, and running transversely across the genital passage. At its central part it was rope-like, about as thick as a man's thumb, and very tough and hard. Towards each extremity it became flattened out antero-posteriorly, taking on the character of a thick, tough membrane, and was firmly attached to each side of the vagina.

*Case No. 2.*—A three-year-old cow at her first parturition; animal had been in labor for twelve hours, rectum protruding, vulva apparently much swollen, the enlargement having a pronounced cervical shape, two feet projecting a few inches from the orifice. Attendants had pulled repeatedly on the projecting members, but without any effect, other than to cause the patient distress. Exploration with the hand discovered the calf's nose and face wedged firmly against the roof of the vagina, while tight underneath its jaws was a hymen answering in all essential features to Case No. 1. In both cases dilatation and retraction of the labiae of the vulva, with slight traction on the hymen, readily brought it within sight and reach. Section with an ordinary bistoury was all the treatment adopted or required.

In Case No. 2, the feet and head were returned to the womb before section was attempted, immediately after which the cow delivered herself of a live calf. Twenty minutes later, on giving the patient the usual parting glance, it was discovered that the cow had laid down, commenced straining, and had everted the entire body of the womb. The organ was quickly returned to its place, the vulva secured by three deep sutures, and the animal banked up in the ordinary way. She made a speedy and complete recovery.

**VIVISECTION IN SWITZERLAND.**—The citizens of Zurich, Switzerland, have rejected, by 39,476 votes to 17,297, a proposal submitted to them for the absolute prohibition of vivisection. On the other hand, a counter proposal of the Grand Council in favor of protection of animals, with due satisfaction to the demands of science, was adopted by a vote of 35,191 to 19,551.

## SOME CLINICAL OBSERVATIONS.

We take special pleasure in reproducing *in extenso* a series of cases which Professor Peuch, of the Veterinary School of Lyon, published in the *Journal* of that school, as having occurred at his clinics. What a good example, and how well veterinarians that are connected with our American colleges would do if they would only follow it.—EDITOR.

LAMENESSES DUE TO TRAUMATISMS.—*Observation I.*—A heavy seven-year-old horse, pulling a heavy load, strained violently to start it. The effort was so violent that one of the chains of the right trace broke suddenly, and as a consequence the left shoulder was severely pressed upon by the collar suddenly displaced as the chain broke. An intense lameness followed, and the horse was carried to the Lyon school. As he arrived, he walked on three legs, the leg hanging as if the seat of fracture; the toe slightly touched the ground, the knee was half flexed. The shoulder near the joint, the arm and fore-arm of the lame leg, were tumefied, warm, painful, especially on the anterior part of the arm; there was no solution of continuity of the skin. No crepitation was detected by moving the leg in all directions. In the presence of these symptoms and the history, a diagnosis was made of *traumatic myositis*, with probable lesions of the branches of the brachial plexus, which go to the muscles of the shoulder and of the arm. The case was thought serious on account of the excessive lameness, the extent of the inflammatory swelling, the rapidity of its formation; though all danger of septic infection was absent. This diagnosis and prognosis was made before the students, with the statement that if the animal was left at rest for a long time the case would likely end in recovery. The animal, being of great value, was placed under treatment,—cold douches over the tumefied region. This, after two weeks, brought on the disappearance of the swelling. The animal was in good condition; but the lameness was as great as at the entrance into the hospital. There was besides a well-marked muscular atrophy opposite the subspinatus fossa of the scapula. The hydrotherapeutic treatment was replaced by electricity, faradization. At first the applications were well supported, and the atrophied muscles contracted slightly. But they, by degrees, became painful, and soon the animal struggled and fought so much that they had to



be stopped. After a month electricity was taken up again, alternately with cold douches, massage, and walking exercise. Four months and a few days after, the lameness was scarcely perceptible in walking, but was yet marked in trotting. It is, however, hoped that it will soon disappear altogether, as the atrophy is gradually passing off. Indeed, after 137 days of laying up altogether, the animal resumed his work as good as ever.

*Observation II.*—A nine-year-old horse, used for double purposes, had a *deep punctured wound* of the left fore foot. He was very lame and was carried in an ambulance to the hospital at Lyon. One month ago, he became suddenly and severely lame on the left fore leg. The foot was examined, and a nail, implanted in the frog, was extracted. The animal was treated, improved, and was returned to his work. He soon became so lame that he had to be transported in an ambulance. In fact, the left fore leg did not assist in the carrying of the body, either in walking or at rest; it was the seat of lancinating pains. The diseased foot was unshod with a great deal of care; it was well pared down thin, and the following lesions were exposed: In the middle zone of the plantar face of the hoof and towards the anterior part of the lateral lacuna, there was a fistulous wound, with swollen edges, filled with yellowish, viscous pus, mixed with clots of synovia. Around the frog, the hoof was all loose as far as the internal glome of that organ. The foot was hot, the pulsations of the internal collateral artery of the cannon were strong and more readily felt on the left than on the right side. The history told the nature of the case; the severity of the lameness, lancinations, fistula on the middle zone of the plantar region, and specially the flow of *synovial pus* showed that it was a deep penetrating punctured wound, involving the whole thickness of the plantar aponeurosis to the small sesamoid synovial bursa. The absence of swelling at the coronet, and of the leg, induced the belief that the interosseous ligament, joining the navicular to the os pedis, was intact and that the inferior *cul-de-sac* of the synovial sac of the joint was not open. Notwithstanding the fact that the trouble was one month old, it was feared that the necrotic lesion, characterized by the plantar fistula, may have involved little by little the whole plantar aponeurosis, the interosseous ligament and the articulation. The classical operation was indicated to prevent all those accidents. However, as in some similar or at least much like cases, we have obtained full success with trochiscus of sublimate corro-

sive,  
and  
man  
man  
cicat  
terio  
sole,  
of su  
foll  
of oa  
leath  
Duri  
the l  
say 2  
isted  
more  
hosp  
Two  
oblite  
cury,  
larly,  
a few

(  
*cox-o-*  
going  
When  
and t  
foll  
plum  
the fo  
pres  
joint.  
the m  
was v  
groun  
leg se  
which  
of the  
gressi  
rather

\* T  
age, q. s  
forms.



sive, we decided to try it first\* before making the large removal and division required for the operation, and which always demands such long rest, or may be followed by deformities or permanent lameness, too commonly observed as a consequence of the cicatricial adhesions between the perforans tendon and the posterior face of the navicular bone. Therefore, the hoof of the sole, frog, the internal bar were thinned out, and then a pencil of sublimate was introduced into the fistula down to its bottom, following its course, which was slightly oblique. A tar dressing of oakum was laid over the sole, and held in place by a piece of leather placed under the shoe. The animal was put in slings. During the day following this cauterization by the sublimate, the lancements were frequent, the pain great, but the next day, say 24 hours after the cauterization, a sensible improvement existed, and the following days, the pain diminished more and more, to such an extent that 12 days after its entrance to the hospital, the horse was no longer lame, walking or trotting. Two days after the shoe was taken off the fistula was entirely obliterated by a greyish scar, formed by the bichloride of mercury, under which the cicatrization was no doubt going on regularly, as the animal was no longer lame. He resumed his work a few days after.

*Observation III.*—This lameness was due to an *incomplete coxo-femoral luxation*. A four-and-a-half-year-old colt, while going out of the stable, slipped and fell heavily on the left side. When up again, he was found very lame on the left hind leg, and two days later was brought to Prof. Peuch,—presenting the following condition: In standing the left hind leg was off the plumb line, and scarcely rested on the ground with the toe of the foot. The stifle, as well as the external face of the thigh, presented a swelling, marked principally at the coxo-femoral joint. To make the horse walk, he had to be urged much, as the motions of the left hind leg seemed very painful. Locomotion was very difficult, the lame leg being scarcely raised from the ground, moved to a very limited extent; the various parts of the leg seemed immobilized; the animal hesitated to rest on his leg, which was supported by the entire plantar surface. The point of the left hock was a little higher than that of the right; progression of the animal did not take place in a straight line, but rather sideways; the body of the horse seemed to be curved to

\* The trochiscus is made as follows:—R. Sublimate, 1 part; starch, 2 parts; mucilage, q. s. to make a paste, which is afterwards divided and rolled in conical or pencil forms.

the right. By rectal examination, nothing abnormal was detected; no painful point in the pelvis. This examination showed that there was no complete fracture. But the soreness of the stifle and of the thigh, the swelling of these parts seemed to be the expression of an incomplete fracture of the femur, on account of the violent fall on the pavement. Still, the immobility of the lame leg, its shortening, made us think that the lesion was located in the coxo-femoral joint, perhaps an incomplete dislocation. However, the animal was placed in slings and continued cold irrigation applied on the swollen parts. This treatment was carried on for five days. After that time the swelling, which marked the hip joint, had disappeared, and this was exposed, deformed. There was a projection more marked than in the normal state; in front of it a depression, which did not exist on the opposite side. In placing the hand over the deformed part and moving the leg forward and backward, outward and inward, no crepitation was detected. The movements of the leg were very limited, always very painful, and it was absolutely impossible to raise the lame leg and carry it backwards in extension. Rectal exploration, made again, gave negative results. However, the deformation of the left hip joint, the abolishment or at least the diminution of the active mobility of the leg, the shortening of the same, all decided us to consider the case as one of hip luxation, which we believed incomplete on account of the small amount of shortening and the small extent of the articular deformity. An application of the charge of Lebas was put on, the animal kept in slings until he put weight on his left hind leg without hesitation. It took six weeks to reach that point. At that time the lameness was yet very great in walking—the only gait the animal could take. The muscles of the thigh were emaciated, the horse walked by small steps, sideway. About three months from the date of the injury, the animal had recuperated some of his movements. He could trot, but was quite lame. The lameness increased by exercise. The abduction was very limited. In standing the animal rested his toe principally on the ground and the leg had a rotatory position inwards. The horse was turned out. Seven months from the accident, he was no longer lame walking or trotting; the hip joint was very much deformed. He resumed his work, making 15, 20 and sometimes 30 or 35 kilometers a day in trotting. His hip remained in the same condition.

[TO BE CONTINUED.]

## EXTRACTS FROM EXCHANGES.

### ENGLISH REVIEW.

#### ACTION OF CHLORAL IN MILK FEVER [By M. D. Pugh].—

Taking into consideration the fact that in milk fever the functional disturbances of the digestive organs are more complete than in any disease of this apparatus, and that preceding its appearance the changes of the uterine discharge take place, and that as a consequence of the decomposition of the food in the stomach a general intoxication takes place of the whole organism, the author claims that milk fever is produced by the absorption of putrefactive compounds, chiefly sulphur; that in the presence of these compounds chloral hydrate, expending its influence chiefly on the alimentary tract, prevents putrefaction by decomposing the sulphur compounds, and it is, therefore, indicated; and that sulphate of magnesia is contra-indicated because of its decomposition in the stomach and its emanating a fresh source of sulphur.—(*Veterinary Record*.)

AN OCCULT FOOT LAMENESS.—In the same journal, Mr. W. E. Litt presents the photograph of a horse's foot, illustrating a beautiful lesion of bony nature on the posterior part of the articulation of the second and third phalanx with the navicular bone. The animal had been lame for a long time with intermittence of comparative relief, which allowed him to perform much work and to win many races. After his death from ruptured aorta, an examination of his foot was made, which showed that there had been no fracture, no adherence of the tendon to the navicular bone, nor ulceration. But the under surface of that bone was much enlarged and roughened by a bony deposit which extended to the os pedis and causing a complete ankylosis at each extremity of the navicular. The interesting points of the case were the insidious early commencement of the disease, its development, and the entire absence of any external manifestation. When at work he was lame, generally dead lame in trotting, but walked and galloped sound.

A PECULIAR CASE OF RABIES.—Under this heading Mr. Wagstaffe reports to the *Veterinary Record* that he made a post-mortem examination of a dog which was killed as a suspect of rabies, a condition to which he certified from the examination he made and the lesions he found. The dog was reported to have bitten eight cows, but four or five of them were considered as suspicious and quarantined, and nothing occurred in them. Some

*four and a half months later* a calf born from one of these cows died, after exhibiting symptoms suspicious of rabies, and *two months later* another calf, also born of one of the cows *six and a half months* before, died of rabies, as proved by inoculation of the brain and medulla. All the bitten cows are still in good health. The question is asked: is it not possible that the calves were bitten by another rabid dog, instead of inheriting the disease from the mothers, which, by the way, are yet well?

THE NEW PHOTOGRAPHY IN VETERINARY PRACTICE [By Mr. F. Hobday].—The application of Roentgen's rays to veterinary practice is not a thing which can be smiled at, and certainly will show its usefulness in large as well as in small animals. The author relates, in the *Journal of Comparative Pathology*, of Mr. J. McFadyean, three cases where the practical utility of the X rays is demonstrated. Case No. 1.—A Persian cat, pregnant, was examined to ascertain the number of foetuses *in utero*. The result was not very satisfactory on account of the difficulty offered in bringing her under the influence of anæsthetics. Yet the negative obtained permitted of a clear inspection of the vertebral column and the pelvis, an indistinct shadowy mass, probably the intestines, and an outline of the uterus. Delivery of the kittens prevented a third attempt at anæsthesia. Case No. 2.—A cat which had sustained a fracture of the forearm, had remained lame, with shortening of the leg. Some six months after he was shown to the author, who made a diagnosis of no union of the fracture of the ulna, with a large swollen fibrous union at the lower end of the radius. Amputation was advised, but before being performed a photograph of the leg was taken by the X rays. The negative confirmed the diagnosis. Case No. 3.—A third cat suffering from lameness, and having distinctly perceptible a foreign body subcutaneously situated in the upper and anterior portion of the forearm. The photograph illustrated the very position of the foreign body, which was extracted, and proved to be a flat piece of metal with an exceedingly sharp point.

THREE UNCOMMON CASES are reported in the *Journal of Comparative Pathology* by Mr. J. Penberthy, under the headings: 1st. *Invagination of the Cæcum of a Horse*.—A bay gelding, five years old, which was affected with colicky pains, lasting some three weeks without relief, notwithstanding the opiate treatment he received, combined with drenches and enemas. The temperature had gradually increased from 102 to 106, the pulse raised from 56 to 94. At the post-mortem a complete in-

tuss  
cæc  
the  
pain  
the  
exist  
men  
arm  
finu  
supp  
mat  
mare  
atten  
when  
the  
blad  
of th  
foun  
jest  
port  
hæm  
ment  
Tæw  
nearl  
chara  
vario  
const  
At th  
morte  
cover  
hypoc  
lying  
indica  
tions,  
bedso

A  
pregna  
was sl



tussusception of the cæcum into the commencing portion of the cæcum was found. The principal circumstances to notice were: the sudden attack, the continued evidence of dull abdominal pain, no violent symptoms after the first few hours, a swelling in the right flank, and, as determined by rectal examination, the existence of a somewhat hard, compressible, movable enlargement; the retention of the enemata, the facility with which the arm could be passed up the rectum, absence of tenesmus, continued high temperature, small quantity of food being taken, suppression of urine, and the duration of the illness. 2d. *Hæmaturia in a Mare, with Dilated Ureter*.—An old chestnut mare, general health good, somewhat debilitated, makes frequent attempts to urinate and passes coagulated blood *per vaginam* when in the position of micturating. On exploration through the urinary meatus, which easily admitted a small hand into the bladder, a large round sausage-like body is felt through the roof of the bladder. At post-mortem the bladder and urethra were found normal; the right kidney somewhat enlarged and congested; its pelvis dilated and a small ulcerated spot in its lower portion; the right ureter was enormously distended. Rest, hæmostatics, and diaphoretics had been used without improvement. 3d. *Impaction and Rupture of the Colon, with Partial Twist of the Cæcum, in a Mare*.—An aged mare, which for nearly a month, showed some of the symptoms of impaction, characterized by more or less abdominal pains, retention of urine, various changes in the temperature and pulse, capricious appetite, constant decubital position, rare defecation, and eventually died. At the post-mortem were found: impaction of the colon, *ante-mortem* laceration at its fourth portion, peritoneum inflamed and covered with food material. The cæcum was mainly in the left hypochondriac region and sharply bent upon itself, with its front lying against the liver. The treatment had been according to indications, consisting of stimulant draughts, aloes, rectal injections, physostigmine in the jugular, and local treatment of the bedsores.

---

GERMAN REVIEW.

Translated by W. V. BIESER, D. V. S., New York City.

A CASE OF CONGENITAL TUBERCULOSIS.—A seven-months' pregnant cow, reacting characteristically to tuberculin injection, was slaughtered. Tubercles or tubercular changes were present



in the lungs, pleura and small intestine, but the genitalia were free. The foetus was likewise tuberculous, greyish tubercles being present on the surface of the liver, the lymphatic glands containing miliary tubercles in a state of cheesy degeneration, being conglomerated together in the hepatic omentum, both glands and tubercles containing Koch's tubercle bacilli. Now, Nocard had always taught that the foetus could only become tubercular when the uterus of the mother was tubercular, *i. e.*, only through a maternal source. But this case seems to prove that the foetus can become tuberculous without the uterus being tubercular, *i. e.*, from foetal source *per se*. For he found the vaginal and uterine mucous membrane normal; at least he could discover no tubercles nor bacilli, nor cheesy degeneration, nor suppurations upon the maternal side of the uterus. On the contrary, the only evidence of disease in the genitalia or their contents existed on the foetal side, *i. e.*, in the placental cotyledons, seeming to prove that the foetus can become tubercular *in utero*, without the uterus being tubercular. There were no round miliary tubercles in the cotyledons, but a yellow cheesy, diffuse infiltration containing Koch's tubercle bacilli. It is very easy for the blood in the capillaries of the placental villi, surrounded as they are or walled in as they were with tubercular areas, to receive the bacilli from the placenta and send them coursing through the umbilical vein to the liver and lymphatic glands of the foetus. How the foetal placenta is infected, the surrounding uterus being normal, is hard to say; but one thing is certain, and that is that a foetus can become tubercular in an apparently healthy uterus, making a marked exception to N.'s rule that a foetus can only become tubercular through the agency of a tubercular uterus. Is the foetus infected through the male spermatozoan, a thing hardly likely? What is the explanation?—(*Oest. Monatschrift f. Thierhilk. und Revue.*)

**TREATMENT OF HOOF CANCER.**—A decided advance has been made in the treatment of hoof cancer lately, but only after patient and painstaking application of the most successful remedies. Nitrate of lead has during the last few years been used with encouraging results in Germany. Concurrently with others the author believes that the careful removal of all the undermined and pathological tissue is of the utmost importance; this having been done and all redundant vegetations checked by the use of the cautery, the author employs lead nitrate. He selects a well-drained stall, well strewn with straw, appoints a man solely to water the animal and keep the stall clean; then remov-

ing  
surf  
over  
thing  
meth  
band  
mois  
nitra  
prese  
or fo  
catio  
form  
with  
but n  
auth  
deduc  
Thier  
A  
EFFE  
cases  
with  
medic  
ously  
ciated  
sheep  
of the  
achiev  
substa  
Given  
in pill  
45 mi  
very  
author  
venous  
venous  
simple  
region  
to cau  
steriliz  
serted  
crystal  
solution  
mented

ing all redundant pathological tissue, he cleanses the exposed surface and dusts a thin layer of finely powdered nitrate of lead over it; he then applies an aseptic dressing and bandages everything so as to exert slight pressure, the pressure being the best method of keeping in check proliferating granulations. The bandages and dressings are removed every three days, and each moist and sprouting area as it manifests itself is dusted with lead nitrate. After five or six changes of dressings, the affected area presents a healthy uniform yellowish-brown aspect, and in three or four weeks the animal can resume work. Robertson's application of iodine solution in ether and the subsequent use of iodoform has not in the hands of the author given results comparable with the above. Another remedy much in vogue in Germany, but not used by the author, is thioform. As these cases of the author were of mild severity he does not wish his conclusions or deductions to be authoritatively accepted.—(*Oest. Monatschrift f. Thierhilk. und Revue.*)

A STUDY OF THE PHYSIOLOGICAL AND THERAPEUTICAL EFFECTS OF BARIUM CHLORIDE.—Upon the report of two cases of poisoning with  $Ba Cl_2$ , D. determined to experiment with the remedy and discovered:—1st. That in veterinary medicine, whatever its effects elsewhere,  $Ba Cl_2$  given intravenously, subcutaneously, or per os, causes energetic peristalsis associated with profuse discharges. 2d. That in the ox and the sheep the effect is milder and less reliable. Taking advantage of these facts he resorted to the use of the drug in colic, and achieved results unattainable by either eserine or pilocarpine. To substantiate this the author tested the remedy at his clinic. Given *per os*, according to D., a medium-sized dose (10.0), either in pill or solution, gives evidence of their action in from 10 to 45 minutes; given intravenously or subcutaneously the effect is very rapid, rapid action being what we want in colic. The author limited the trial of the remedy to subcutaneous and intravenous injections, experimenting only upon sound horses. Intravenous injection is a simple and safe procedure provided a few simple rules are followed. The hair is shaved from the jugular region, the area disinfected, the jugular vein compressed in order to cause venous turgescence above the point of pressure, and a sterilized canula of a sterilized syringe (holding 5.0 to 10.0) is inserted slantwise into the vein. The drug is a clear white, salty crystalline substance, soluble in water; it is injected in watery solution of the strength of 10 per cent. The horses experimented upon were numbered, their soundness having been es-

established beyond all question. Each horse was simultaneously injected and watched by a competent observer for a period of one and a half hours, a period long enough to allow all the effects of the drug to disappear. Three horses received 10 cm.<sup>3</sup> each, two 7 cm.<sup>3</sup> each, one 5 cm.<sup>3</sup>, and one 15 cm.<sup>3</sup> of the 10 per cent. solution. In all, after from 3 to 30 seconds, twitchings of the jaw, lasting from 15 to 30 minutes, set in, unaccompanied by salivation. During all this time, they were evidently all ill at ease, for they contracted their upper lips, turned and shook their heads vigorously. After from 10 to 150 seconds, the intestinal action of the drug ensued. The animals elevated their tails and passed more or less flatus. Then after from 1¼ to 3½ minutes they passed without any straining good formed fæces. But almost immediately they became restless, strained, pawed the ground uneasily, and looked back at their flanks. The horse that received 1.5 gm. began to moan and strain vigorously, the others in proportion, those with the smallest doses hardly moaning or straining at all, one of these in fact began to look for food after 4 minutes. Then the discharge of gas and fæces increased, so that during the first hour the animals defecated 5, 7, 12, 13, 14, 14, 26, respectively, the fæces at first formed, becoming pasty and then liquid in character. In none did salivation or sweating occur. One moaned piteously as above stated, one laid down prostrated. In some the borborygmi were increased, in others they were diminished. One had vesical tenesmus. While none showed a rise in temperature, all showed an increased frequency of the pulse, most of them showing an increase of 4 to 8 beats, only one an increase of 36 beats, the latter, however, being comparatively quiet. Hence was substantiated D.'s claim that Ba Cl<sub>2</sub> affected the heart. But this effect upon the heart was only temporary, inasmuch as the action of the drug lasted only from ¾ to 1½ hours, after which the circulation became normal again. It is the author's impression that Ba Cl<sub>2</sub> is more trustworthy and prompt in exciting peristalsis without materially or proportionately increasing the intestinal secretion than any other drug. These trial horses not being affected with colic allowed of the easy administration of the remedy. But in horses rolling about with colic, the proper administration of the intravenous injection may be impossible. Hence after the lapse of a week, six of these horses were experimented upon subcutaneously, a treatment that may be more feasible in colic. Two received 5 cm.<sup>3</sup> each, two 10 cm.<sup>3</sup> each, one 15 cm.<sup>3</sup>, and one 20 cm.<sup>3</sup>, of a 10 per cent. watery solution

subcutaneously in the region of the scapula. On the average, after  $\frac{1}{2}$  to 1 minute, twitchings of the jaws set in, but not so prominently as in the first set of experiments. Then a period of disquiet, followed by severe colicky pains, set in. They reared and stamped, shook their heads, and contracted their upper lips. One rolled about the floor, one perspired profusely. The discharges were not so profuse as in the first set of experiments, only occurring 1, 2, 3, 3, 6, 6 times respectively during the observations. The pulse increased from 46 to 56. Respiration and temperature remained normal. Whether the continued rearings of the animals and their continuous colicky symptoms, which became most severe from 15 to 20 minutes after the injection, were really due to intestinal pains—the peristalsis was increased in most cases—is not quite certain. The fact is that the horses always stamped or moved most uneasily those limbs near the site of injection and that they tried either to protect or gnaw at the site of injection. Although neither swelling, pain nor heat was evident at the site of injection, still the site of injection seemed to be painful. The disquiet lasted  $1\frac{1}{2}$  hours upon the average, some only returning to their normal condition after 2 hours. No local sequelæ developed at the site of injection. Compared with the intravenous injections, the subcutaneous injections were very unsatisfactory. It is true, the catharsis ensued, but the general symptoms of disquiet, and especially the abdominal pains and apparent local tenderness at the site of injection, form such a congerie of symptoms as would give the laity the impression that one was increasing instead of diminishing the colic. It is true, that such a consideration should not enter in the treatment of disease, but if the same effect can be induced in a more satisfactory way, why not employ that way? The author, therefore, prefers intravenous injection, inasmuch as it is not more difficult than the other, is prompter, and causes less disagreeable concomitant disturbances than the subcutaneous injection does. With asepsis, no risk is run. Where the excitement of intestinal peristalsis for the purpose of emptying the bowel is required, as in the case of hard *sejbalæ* of *fæces*, in colic or intestinal paresis associated with colic, where formerly *eserin* and *pilocarpine* were used, the cheaper remedy is  $\text{Ba Cl}_2$  given intravenously. It has in the hands of the author shortened the period of colic, in various cases. Where the pulse is rapid (70 to 80 to the minute), or where you fear obstruction,  $\text{Ba Cl}_2$  is contraindicated, inasmuch as it does no good and increases the pain needlessly.



The dose intravenously is 0.5 gm. or 5 cm.<sup>3</sup> of a ten per cent. solution.—(*Schweiz. Archiv. f. Thierhilk.*)

CONCERNING THE THERAPEUTIC EFFECTS OF DIFFERENT REMEDIES.—*Potassium Bromide*.—H. observed a favorable action of this remedy in 12 cases of epilepsy in oxen, swine, and goats. *Cocaine*.—A very valuable, fiery stud had a tear 7 c. m. long through the right ala nasi, and could not be approached. After soaking the wound with a 15 per cent. solution the animal allowed the rent to be sewn up. *Potassium Iodide*.—S. cured 3 cases of actinomycosis of the tongue with 8 g. of K. I. given daily for 12 days. K. with 6 to 12 g. of K. I. daily achieved cure in 9, and improvement in 3 cases of actinomycosis. E. likewise achieved the best results with the remedy. H. limits himself to the use of K. I. in this disease. Although K. I. does not cause absorption of some actinomycosis still he is in general satisfied with the remedy.—(*Berl. Thierarzt Woch.*)

A CASE OF MORPHINE IDIOSYNCRASY IN A COW.—Three days after an abortion in a cow, vaginal tenesmus set in with a discharge of a very foetid, greyish-yellow secretion. Removal of the decomposing retained placenta afforded temporary relief for that night. Next day, however, tenesmus set in again, so severe that 1.0 morphine mur. was injected subcutaneously in the region of the neck. Twenty minutes after the injection—all tenesmus having ceased—very unusual symptoms of excitement set in, viz.: bellowsings every minute, with occasional low growlings; alternate liftings and placings down upon the ground of the diagonal pairs of limbs; elevations of the upper lip with the emissions of puffs similar to those of a horse that had just undergone severe exertion; a nearly total cessation of milk secretion. Thereupon at 6 P. M. a 60.0 chloral hydrate was given per os with the result that total quiet ensued in the course of a few hours.—(*Schweiz. Archiv. f. Thierhilk.*)

#### FRENCH REVIEW.

SERIES OF ACCIDENTS DUE TO THE DEGLUTITION OF FOREIGN BODIES BY NEAT CATTLE [*By M. J. N. Ries*].—An old cow, more than 25 years of age, presented at post-mortem a sharp point, inserted in the right ventricular wall and concealed by numerous thick neomembranes around it. Its presence dates back for years. . . . Another young cow presented also a sharp point in the cardiac muscle, which was swallowed 16 months before. . . . A hairpin was found in the pericardium of another. . . . Another

was ex-  
flank  
ery. .  
was pe  
the ru  
was e  
died. .  
morter  
the dia  
origin.  
reticul  
cow at  
matic  
egg, th  
lodged  
of the  
showed  
pin, w  
iculum  
the ani  
culum  
sewing  
lung. .  
from th  
the aut  
practic  
a positi  
Cin  
[*By M*  
obtaine  
author  
*confrèr*  
tion.  
Dickerl  
to the r  
THE  
MENT O  
the atte  
the trea  
has trea  
in four  
der dim  
any alte



was extracted from the walls of the reticulum, by incision of the flank and entrance through the rumen and made a partial recovery. . . Stimulated by this partial success, a similar operation was performed on another cow, and a piece of wire, held partly by the rumen and having entered the chest through the diaphragm, was extracted. Several complications followed and the cow died. . . Two fatal cases, where large abscesses were found at post-mortem between the pericardium and the diaphragm in one and on the diaphragm of the other. These were undoubtedly of traumatic origin. . . The sole of a shoe with large nails was found in the reticulum of a cow that died with paraplegia. . . In another cow at post-mortem a rupture of the reticulum with a diaphragmatic abscess containing two stones, one as large as an egg, the other as big as a nut. . . A long knitting-needle was lodged in the pericardium, which it had entered on the right side of the median line. . . A four-year-old cow was destroyed and showed a sharp point lodged in the diaphragm. . . A large hair-pin, with one point in the pericardium and the other in the reticulum was extracted by operation through the flank and rumen, the animal recovering. . . A lead spoon was found in the reticulum of another cow that had died. . . Four other cases of sewing needles were found at post-mortem in the heart and in the lung. . . Then another case where a piece of wire was extracted from the reticulum by opening of the rumen. . . From this series the author comes to the conclusion that gastrotomy is the only practical surgical operation likely to benefit individuals in which a positive diagnosis has been established.—(*Rec. de Med. Vet.*)

CHLORIDE OF BARIUM IN THE TREATMENT OF COLICS [*By M. Cadiot*].—After speaking of the successes which he has obtained in the treatment of colics with this compound, the author reads the reports that he has received from one of his *confrères* where serious fatal accidents followed its administration. While appreciating the value of the cases recorded by Dickerhoff, the conclusions of the author are rather unfavorable to the use of this compound.—(*Ibid.*)

THE HYPODERMIC INJECTIONS OF VERATRINE IN THE TREATMENT OF MAMMITIS [*By M. Detchevers*].—The author calls the attention of practitioners to the good effects of veratrine in the treatment of mammitis in cows. In seven or eight cases he has treated, the general fever which had reached 104° subsided in four hours, and the hard condition of the swelling of the udder diminished gradually, to subside entirely without leaving any alteration in the milk secretion after two or three days. He

recommends the following solution: Veratrine, 40 centigrammes; alcohol, a few drops; distilled water, 10 grammes. The injection can be renewed if the fever returns.

**CEDEMA OF THE GLOTTIS AFTER PARTURITION** [*By M. Perrussel*].—One night a cow calved without difficulty, and then suddenly began to roar. The noise took place at each expiration, and was heard at thirty feet from the animal. It was located in the glottis and was detected in the whole length of the trachea and in the chest. During feeding, the roaring increased; and seemed to subside when the animal laid down or walked. The treatment consisted in friction of ammoniacal liniment, double strength, purgation with 600 grammes of sulphate of magnesia, followed by daily administration of diuretics. The roaring diminished after 48 hours and disappeared on the fifth day.

**DERMOID TUMORS OF THE CONJUNCTIVA IN A YOUNG CALF** [*By M. A. Bru*].—A calf three days old presented a queer congenital abnormality of both eyes. A fleshy growth, covered with hairs, was resting upon each ocular globe and was protruding between the eyelids. On the left side, where it was more developed than the right, it formed an elongated band running in the line of the pupil. Attached at the inner angle of the eye by somewhat loose connective tissue, it was attached in its middle below the circumference of the cornea. It ended suddenly towards the temporal angle by a little projection continued to the sclerotic. It was covered with fine short hairs, near the sclerotic, but in its middle the hairs were long and thick like those of the skin of the young subject. On the right eye the tumor was smaller. It was rounded, also covered with hairs, and was implanted partly on the sclerotic, partly on the cornea. The growths were removed eight days apart and the patient recovered without complications towards the eye.—(*Rev. Veter.*)

**TWO SPLEENS IN A DOG** [*By M. Lanels*].—It is by exception that more than one spleen is found. This case presented two organs, of different size, but well formed. They were found in a dog that died from rabies. One was of the normal size, the other three times smaller. Both were well defined, and distinct from each other; both were attached to the sublumbar region with the great omentum. Both irregularly falciform, resembled each other by their form and their anatomical positions. The point, somewhat rounded, was twisted upwards; the base, thick and wide, looked downwards. The relations with the other viscera were normal. Their structures were identical; their color, their peritoneal envelope, their capsule, splenic pulp, mal-

pighia  
presen

DR  
FIRME  
Veteri  
discha  
illary s  
was co  
perhap  
tonic t  
solution  
but not  
and on  
animal  
peratur  
testing:  
41.2 (n  
tions of  
—the a  
to inoc  
animal,  
acute g  
the nas  
visible  
nature.

MAI  
this in  
ruminar  
and ing  
post-mor  
portion  
tion as i  
but the  
the blad  
of the ut  
marks, v  
and the  
ovaries,  
ran a co  
near the

pighian bodies, blood vessels and nerves, were alike. The subject presented no other abnormality.—(*Ibid.*)

---

ITALIAN REVIEW.

---

DIAGNOSIS OF GLANDERS MADE WITH MALLEIN CONFIRMED BY INOCULATION.—This case is recorded in the *Clinica Veterinaria*, and related to a horse ten years old, which had a discharge on the right side, with a very small gland of the maxillary space and some dyspnoea. At first appearance the case was considered as one of simple catarrh of the frontal sinuses, perhaps of a chronic nature, and the animal was submitted to a tonic treatment with nasal injections of astringent and antiseptic solutions. Some temporary improvement was at first observed, but not sufficiently marked to justify great hopes of recovery, and on account of the purulent aspect of the discharge the animal was submitted to the test of mallein. The average temperature had been some 37.8 C. (about 98 F.) for two days before testing. After the injection it rose to 40.4 to 41.1, and reached 41.2 (near 106 F.). The animal presented all the manifestations of local and general reaction. The diagnosis was decided,—the animal had glanders. For more certainty it was decided to inoculate a donkey. This was done on the septum of an old animal, which in a few days developed a well-marked case of acute glanders. At the post-mortem of the horse lesions of the nasal mucous membrane were discovered, which were not visible during life,—also pulmonary lesions of undeniable nature.

MALE INTERNAL PSEUDO-HERMAPHRODISM.—We read of this in the *Clinica Veterinaria*, which was that of a young ruminant which, while being deprived of testicular envelopes and inguinal canal, had all the characters of a male. At the post-mortem, there was found a uterus and vagina, well in proportion with the size of the animal, situated in the same position as in a female and having the same anatomical relations, but the vagina ended in a *cul-de-sac*, on a level with the neck of the bladder. An incision made upon this exhibited the orifice of the uterus, whose cavity was continued, without well-defined marks, with the vagina, and was full of mucous. The horns and the Fallopian tubes were well developed. There were no ovaries, but in their place two testicles, whose efferens canals ran a course inverse to that of the Fallopian tubes and ended near the corresponding horn. The vesiculæ seminales were not

placed immediately above the bladder,—they were resting against the bladder a little above the urethra. Their excretory ducts, after a course through the thickness of the vaginal wall, opened upon the urethral crest.

**ENUCLEATION OF THE RIGHT EYE OF A DOG.**—As a result of a deep wound of the cornea with total ophthalmia of the globe, a hunting dog was operated upon by enucleation of the eye. A circular incision was made around the conjunctiva, the right, lateral and oblique muscles were divided, then the posterior and the optic nerve. There was no anæsthetic used. The hæmostasis was made by plugging. Dressings of iodoform brought on cicatrization in twelve days. The peculiarity in this case was that no division of the eyelids or of the temporal canthi were necessary to remove the globe.—[This division has already been considered unnecessary by many surgeons.—ED.]—(*Clinica Veterinaria*.)

**GASTROPHILUS EQUI AND PERRONCITO METHOD.**—By the presence of cæstri at the margin of the anus after defecation, the diagnosis was made. The horse that had them had shown recently a great state of nervousness; in the stable he rubbed his tail against the wall and showed great pain at the time of defecation. The treatment adopted was that of Professor Perroncito. The day before, little hay, half ration of oats; in the evening, thin white gruel to drink. The day of the treatment, at 6 A.M., before eating, he received two capsules of 5 grammes each of sulfur of carbone; at 8 A.M., two others; at 10 A.M., two more; at 12 he had half ration of oats; at 3 P.M., another, and then the ordinary regimen was resumed. The third day he had 400 grammes of castor oil. The purgative effect was excellent, and as to that of sulfur of carbone as a cure, it was simply marvellous.—(*Giornale di Med. Vet.*)

**NASAL POLYPUS SIMULATING GLANDERS IN A HORSE.**—This animal had been discharging on the right side for eight months. In the discharge were seen many micro-organisms, some of which looked like those of glanders. Cultures on potatoes, after two days, gave colonies, among which some had the characteristic coloration of those of the bacillus mallei. Three tests of mallein gave only a slight increase of temperature, and local reaction, which excluded the idea of glanders. The animal was destroyed. At the post-mortem, no glanderous lesions were found anywhere, but in the right sinus there was a large mass looking like condensed mucous, which under the microscope showed to be composed of round cells, imbedded

into  
sim  
anin  
a f  
anth  
epig  
with  
peac  
conc  
The  
The  
stite  
(*Clin*  
M  
tary  
the s  
Isola  
other  
etc.;  
are a

PE  
T  
iners  
and 2  
tions  
Hall,  
as we  
T  
until  
was p  
So  
the O  
and M  
exami  
eleven  
each s  
Of  
failed.



into an intercellular connective structure. It was a pedunculated sinus.—(*Giorn. Reale Soc. Vetere.*)

ENTEROTOMY IN A SLUT.—The symptoms presented by the animal justified a diagnosis of duodenal obstruction, produced by a foreign body (chicken-bone) or parasites. Purgatives and anthelmintics gave no favorable result. After a week, the epigastric tension being reduced, the author observed on a level with the hypogastric region, a hard spot, something like a peach-pit. The ninth day this point was very painful and the condition of the animal very critical. It was decided to operate. The intestines were exposed and the peach-pit was extracted. The suture of Lambert was not used, but an ordinary very close-stitched suture applied. The animal got well, quite rapidly.—(*Clinica Veterinaria.*)

MEASURES OF MILITARY SANITARY POLICE.—The Secretary of War of Italy has sent a general circular relating to the sanitary measures to be taken to arrest outbreaks of glanders. Isolation of all animals suspected in quarters far from the others, disinfection most thorough of their own stalls, harnesses, etc.; three tests of mallein, and inoculations to horses or donkeys are also recommended in doubtful cases.—(*Il Nuovo Ercolani.*)

## SOCIETY MEETINGS.

### PENNSYLVANIA STATE BOARD OF VETERINARY MEDICAL EXAMINERS.

The Pennsylvania State Board of Veterinary Medical Examiners held their first examination at Philadelphia on April 20th and 21st. By courtesy of the Mayor of the city, the examinations were held in the civil-service examining rooms in the City Hall, and afforded every facility for the completion of the work as well as the comfort and convenience of the applicants.

The examination commenced at 10 A.M. each day and lasted until 6 P.M., with an hour's recess at noon. The entire board was present.

Some fourteen applicants presented themselves, representing the Ontario Veterinary College, New York Veterinary College, and National Veterinary College. Some thirteen subjects for examination, designated by the law, were grouped to make eleven and were all written; fifteen questions were submitted on each subject, ten to be answered.

Of the fourteen applicants three were successful and eleven failed. The names of those passing and who received the



licence of the board are as follows : Dr. Elmer Seitz, Seitzland, Pa., graduate of the National Veterinary College ; Dr. W. R. Jobson, Franklin, Pa., graduate of the National Veterinary College ; Dr. Wm. S. Longacre, Mantz, Schuylkill County, Pa., graduate of the Ontario Veterinary College.

The Board, after thorough consideration of the matter, decided to leave it optional with the applicants who failed as to whether they should elect to take over again the whole examination, or only those subjects on which they failed. In the event of choosing the latter, the markings on the subject passed to count in computing the general average (65 per cent.) to entitle to license.

The Board authorized the immediate prosecution of three violators of the act, and decided upon the most vigorous action in dealing with all violations of the several provisions of the Act. Every prothonotary in each county of the State has been personally notified to register none without a license of the Board, bearing the State seal ; and in every county of the State a qualified veterinarian will be designated to look after any violators or violations of the provisions of the Act. An arrest has been made in York County, and the violator is now under bail, and the most vigorous prosecution will be pursued in sustaining the Act, in order that the value of the provisions of this law shall be fully tested.

The next meeting will be held in Philadelphia on June 15th and 16th.

W. HORACE HOSKINS, *Secretary*.

#### KEYSTONE VETERINARY MEDICAL ASSOCIATION.

The April meeting of this Association was called to order on the evening of the 14th by President John R. Hart, with the following members present : Drs. J. R. Hart, W. H. Hoskins, H. P. Eves, Chas. Lintz, J. T. McAnulty, F. S. Allen, and W. L. Rhoads.

After a report of the work done by the State Board of Veterinary Medical Examiners, Dr. Hoskins, by request, made a report as one of the committee appointed by the Mayor to select a consulting veterinarian for the city staff of meat and milk inspectors.

Dr. Allen was now unanimously elected to membership.

The question of society certificates was agitated, and, after a short discussion, Drs. Hoskins and Rhoads were appointed by the President as a committee to report at the next meeting as to cost, etc.

Dr. Chas. Lintz being essayist for the evening, read a very interesting paper on "Pleurisy, Acute and Chronic," in which he spoke of several very interesting points in the causes, symptoms, complications, sequellæ, and remedies ordinarily used, also those he found most useful, viz.: In the first stage (which, by the way, the practitioner seldom sees, unless favorably near at hand), he advocates the use of mustard, to the sides and sternum. Also,  $\mathcal{R}$  Quiniæ sulph,  $\mathfrak{z}$ iv; terebinthinæ, and acaciæ pulv., of each,  $\mathfrak{z}$ vi to  $\mathfrak{z}$ iss—giving  $\mathfrak{z}$ i at a dose. Second stage, do away with mustard and alternate with soda salicylate every two hours. After five or seven days give iodide of potassium.

This paper aroused an earnest discussion, some advocating the use of most powerful heart stimulants, nitro-glycerine and nux, claiming digitalis was not to be relied upon.

Dr. Hoskins cited the case of a brown driving mare, eight years old, weight 1045 lbs., which at times appeared dull and had a peculiar tossing of the head, profuse sweating, and at this time incoördination of movement. Diagnosis, cerebral æmia.

Meeting adjourned to reconvene May 12, 1896.

The May meeting of the Keystone Veterinary Medical Association was called at 8:30 on the evening of the 12th, by President John R. Hart, with the following present: Drs. F. S. Allen, H. A. Hackley, J. R. Hart, Chas. Lintz, W. H. Hoskins, H. J. McClellan, and W. L. Rhoads.

Dr. Hoskins, as chairman of the committee appointed to look up the question of cost of certificates, made a very favorable report, and, on motion of Dr. Lintz, the committee was instructed to procure a number of certificates before the next meeting, at which time they will be given to all members in good standing.

Dr. Hoskins, by request, made a report as a member of the State Board of Veterinary Examiners, stating that of fourteen applicants but three were successful. The examination papers throughout showed that a good primary education was essential to the veterinary student, and urged that all schools be more careful in their examination of their matriculants, if they would at all times graduate men who would be an honor to their alma mater. The next examination held by the Board will be June 15th and 16th. After July 1st, 1896, every applicant for examination must come from a three-year school. It is to be regretted that the curriculum of several of the schools now in existence will not be eligible for this examination.

Great credit was given Professors Brenton and McEachran, late of the Detroit Veterinary College, for their laudable efforts to secure a three years' course for the students there, and it was unanimously agreed by those present that a college could ill-afford to lose such men.

It was now moved and seconded that an order be drawn for the payment of the rent for the current year.

Dr. Lintz now moved that in connection with the next meeting we have a lunch as a finale to one of the most pleasant, instructive and prosperous years in the association's history. This was seconded and unanimously voted upon. The President appointed Drs. Lintz, Hoskins and Allen to take charge of that feature of the meeting.

Dr. Rhoads now read some extracts from medical journals, deriding the germ theory, which caused the ardent followers of Pasteur to announce themselves, they giving personal observations in osteoporosis, bovine actinomycosis, typhoid and other fevers, hog cholera, pneumonia, etc.

After the report of a complicated case by Dr. McClellan, the society adjourned until June 9th, 1896.

The June meeting of the Keystone Veterinary Medical Association was called to order by President J. R. Hart, at 8:15, Tuesday evening, the 9th, with the following members of the profession present: Drs. Thomas Rayner, Jas. B. Rayner, Hile P. Eves, Harry J. McClellan, Francis Allen, Jas. Johnston, Chas. Goentner, Jas. T. McAnulty, W. H. Hoskins, John R. Hart, and W. L. Rhoads.

The Committee on Certificates presented a form for the approval of the members. There were a number of suggestions made, principal among which was that the form so read as to show the date of a member's initiation, also the date of adoption of certificate. The committee was continued till the next meeting, with instructions to have the certificates at that time, when they would be presented.

Dr. Hoskins spoke of a bill before the United States Senate, known as Senate Bill 1552, and destined to prohibit all vivisection and experiments with animals. This induced an animated discussion, the sense of the Association being that its passage would only cause those who were interested in science to evade or violate the law.

It was then moved and seconded that the Association, through the Secretary, take official action in condemnation of the bill.

Dr.  
a repor  
found  
It v  
the lun  
funds f  
Con  
and inv  
The  
were t  
tion.  
The  
bership  
of dues  
dorsed  
Dr.  
a gener  
catarrh  
kept in  
lings, a  
it conta  
The  
Moore  
late an  
which v  
have th  
a veter  
veterina  
M. A. is  
worth d  
conclus  
that lik  
willing  
plates t  
self to b  
and be  
This  
an inter  
particip  
strange  
This  
in smok  
journe

Dr. Allen, as chairman of the Lunch Committee, now made a report stating that the verification of what he said would be found at the restaurant in the Odd Fellows Temple.

It was now moved and seconded that the Association pay for the luncheon, and the Secretary was instructed to draw on the funds for the amount.

Communications were now read from a number of members and invited guests.

The resignations of Drs. S. J. J. Harger and J. Rein Keelor were then read, voted upon, and accepted by the Association.

The Board of Censors now thoroughly examined the membership roll, and recommended for expulsion for non-payment of dues the names of seven members. This action was fully indorsed by the Association.

Dr. Goentner cited three cases of stomatitis accompanied by a general inflammation of mucous membranes, and a profuse catarrhal condition of stomach and bowels. These dogs were kept in good hygienic surroundings, fed on oatmeal, and cracklings, and about five weeks intervened between the cases. Was it contagious?

The report of a case of impaction kindly sent by Dr. E. H. Moore was laid over till September, as the time was growing late and it was thought advisable to adjourn to the dining hall, which was immediately done, with such alacrity that you might have thought banquetting was the principal aim in the life of a veterinarian. Here too the zest shown proved that every true veterinarian (and the membership and friendship of the K. V. M. A. is composed of this class exclusively) believes that what is worth doing is worth doing well, and immediately. It was also conclusively proven that they were not adherents of the theory that like cures like, or each must have felt troubled with clam and willing to be again, one member having as high as — empty plates to his credit. In fact throughout every one proved himself to be an adherent of the old rule which saith: "Eat, drink, and be merry, for to-morrow you may die."

This part of the programme was fraught with quite as great an interest as the first had been, and, as the evening wore on, the participants became more interested, more enthusiastic, and, strange to say, more eloquent than usual.

This like unto other worldly affairs of pleasure, wound up in smoke, and, with hearty good fellowship, the meeting adjourned, thus ending one of the most successful years in the



history of this the oldest local veterinary medical association in existence.

JOHN R. HART, *Pres.*

W. L. RHOADS, *Sec.*

FRANCIS BRIDGE, *Treas.*

#### MISSOURI VALLEY VETERINARY ASSOCIATION.

This Association held its second annual meeting in the parlors of the National Hotel in Leavenworth, Kansas, Wednesday, June 10th, 1896. The meeting was promptly called to order by President Stewart, the following members responding to roll-call: Drs. Bray, Harrison, Hunter, McCurdy, Sihler, Stewart, Biart, Pritchard, Kaupp, and Payne. Visitors: Drs. T. J. Turner, Day, and Hopkins.

The minutes of the February meeting were read and approved.

The Censors reported favorably upon the applications of Drs. Day, Turner, Hopkins, and Brooking for membership, and they were duly elected.

The Secretary's report was read and ordered filed.

A resolution was presented to change Art. I., Chapter II., of By-laws.

President Stewart then gave his annual address, being an excellent paper and thoroughly enjoyed by all. Dr. McCurdy's paper on "Tuberculosis," Dr. Pritchard's views on "Control of Contagious Diseases," Dr. Moore's "Castration of Cryptorchids," Dr. Biart's "Preventive Inoculation for Contagious Pleuro-Pneumonia," were all excellent papers,\* and discussion upon the same continued until nearly 1 A.M., and great interest was manifested throughout. The election of officers resulted in the re-election of Dr. S. Stewart, President; Dr. Geo. C. Pritchard, Vice-President; Dr. T. J. Turner, 2d Vice-President; Dr. S. L. Hunter, Secretary and Treasurer. Censors: Drs. Sihler, Payne, Hopkins, Bray, and McCurdy.

The following were appointed to prepare papers for the next regular meeting in October: Drs. Hopkins, Day, Harrison, Sihler, C. O. Netherton, J. O. Young, and C. B. McClellan.

Upon motion, duly seconded, the meeting adjourned to meet in Kansas City, Mo., in October.

S. L. HUNTER, V.S., D.V.S., *Secretary.*

#### SCHUYLKILL VALLEY VETERINARY MEDICAL ASSOCIATION.

This association held its annual meeting at Hotel Woll,

\* These papers will be published as early as possible in the REVIEW.



Pottsville, Pa. June 17th. The meeting was called to order by President Dr. S. G. Burkholder, in the chair, at 10 A.M. On roll-call the following members responded: Drs. Burkholder, Sallade, Faughman, Friderici, Noack, Snyder, Kershner, Bieber, Moyer.

The minutes of previous meeting were read and approved.

Dr. W. H. Yingst, of Harrisburg, Pa., was duly elected as a member of the Association.

The following officers were elected by ballot for the ensuing year: President, Dr. S. G. Burkholder, Denver; Vice President, W. H. Moyer, Elizabethville; Corresponding Secretary, Otto Noack, Reading; Recording Secretary, U. G. Friderici, Tamaqua; Treasurer, Frank McCarthy, Pottsville; Trustees, J. W. Sallade, Pottsville; P. I. Kershner, Fleetwood; U. S. G. Bieber, Kutztown.

Dr. Otto Noack was appointed delegate to the State Veterinary Association, which meets in September, in Reading, Pa. Dr. J. W. Sallade was appointed delegate to the United States Veterinary Medical Association, which meets in Buffalo, N. Y.

The following papers were read and discussed: "Mange," U. S. G. Bieber; "Castration," W. H. Moyer; "Emphysema," Otto Noack.

*Reports of Cases.*—Dr. U. S. G. Bieber was called to see a case May 8th; found it to be a bay gelding, twelve years old, suffering from enlargement of right cheek. He at once diagnosed the case as salivary calculi, and advised an operation, which was performed. Upon removal of same, found it to weigh eight ounces. A complete recovery was the result.

*Papers for next meeting.*—J. W. Sallade, "The Social Position of the Veterinarian"; J. C. Faughman, "Tetanus"; A. Pattieger, "Pneumonia"; W. H. Yingst, "Shoeing"; U. G. Friderici, "Periodic Ophthalmia."

Meeting adjourned 3 P. M.; next meeting to be held in September, in the city of Reading, Pa.

DR. U. G. FRIDIRICI, *Secretary*.

#### MASSACHUSETTS VETERINARY ASSOCIATION.

The thirteenth annual meeting of this Association was held at Young's Hotel, Boston, April 22, 1896.

The only business of importance was the election of officers, as follows: President, Dr. John M. Parker, Haverhill; 1st Vice-President, Madison Bunker, Newton; 2d Vice-President, Daniel Emerson, Lynn; Secretary and Treasurer, Howard P. Rogers,

Allston. Executive Committee, Drs. Thomas Blackwood, Boston ; Wm. E. Peterson, Waltham ; Henry Lewis, Chelsea ; J. R. McLaughlin, Newton ; Geo. Lee, Brighton.

After the business was completed the members adjourned to the banquet hall. As there were no invited guests present, the after-dinner exercises were very informal.

HOWARD P. ROGERS, *Secretary*.

THE CONNECTICUT VETERINARY MEDICAL ASSOCIATION.

The annual meeting of this Association was held at the office of Dr. Thomas Bland, Waterbury, on the evening of June 2.

Dr. R. P. Lyman, of Hartford, and Dr. R. D. Martin, of Bridgeport, were elected members.

Applications for membership were received from Dr. P. T. Keeley, and Dr. E. P. McKenna, and referred to the Board of Censors.

The following officers were elected : Dr. Harrison Whitney, President ; Dr. E. R. Storrs, First Vice-President ; Dr. R. P. Lyman, Second Vice-President ; Dr. H. W. Eliot, Secretary ; Dr. J. H. Kelley, Treasurer. Board of Censors—Dr. J. E. Gardner, Dr. R. P. Lyman, Dr. Thomas Bland, Dr. M. Isaacs, and Dr. R. D. Martin.

Dr. Bland read a paper describing an operation of opening a mucous cyst situated at the base of the tongue and pushing the epiglottis backwards completely, closing the larynx.

After the meeting adjourned a banquet was served, which was much enjoyed by all who were in attendance.

The next meeting will be held in Hartford, Conn.

H. W. ELIOT, *Secretary*.

VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY.

The regular meeting of this Association was called to order Tuesday, June 2d, at 8:30 P.M., at the Academy of Medicine, by the President, Dr. Huidekoper.

On roll-call, the following members responded : Drs. Brether-ton, J. S. Cattnach, Delaney, Ellis, Glover, Huidekoper, Han-son, Lellman, MacKellar, Neher, and O'Shea.

The minutes of the previous meeting were read and approved.

*Reports of Committees.*—Judiciary Committee (Dr. O'Shea, chairman) reported the passage of the Cole Bill, and made a brief report as to what the committee were doing with non-registered men. Moved and seconded that the report be accepted. Carried.

*Committee on Alteration in By-laws* (Dr. Hanson, chairman) reported that the committee offered the following alteration in Art. 13 of the By-laws. To read: "The Association shall meet upon the first Wednesday of each month at the Academy of Medicine, except during July, August, and September," instead of, "The Association shall meet upon the first Tuesday of each month, except during July, August, and September." Moved and seconded that the report be accepted. Carried.

Moved and seconded that registered veterinary graduates of Kings, Queens, Richmond, and Westchester counties be eligible to membership in the Veterinary Medical Association of New York County. Carried.

Moved and seconded that the Secretary invite practitioners from said counties to the October meeting. Carried.

Moved and seconded that the meeting adjourn. Carried.

ROBERT W. ELLIS, D.V.S., *Secretary*.

## COMMUNICATIONS.

### WHO HAS THEM?

FARGO, NORTH DAKOTA, May 29, 1896.

*Editors American Veterinary Review:*

GENTLEMEN:—Will you kindly send us the following numbers of the AMERICAN VETERINARY REVIEW: Nos. 1, 9 and 10 of Vol. XVI. Send bill with the same to the N. D. A. C.

Yours truly,

T. D. HINEBAUCH, M. S., V. S.,  
*North Dakota Agricultural College.*

### A REVIEW OF LEGISLATION IN NEW YORK DURING THE PAST SESSION.

117 W. 46TH STREET, NEW YORK CITY,

June 15th, 1896.

*Editors American Veterinary Review:*

DEAR SIRS:—I have received your favor, asking me, as Chairman of the Committee on Legislation of the Veterinary Medical Association of New York County, to furnish you with a *résumé* of the various legislative doings affecting the veterinary profession of this State at the late session of the legislature, for the information of your readers, and I present the following brief synopsis, with a few comments where thought advisable.

The original Cole Bill asked for the registration of any person practicing, whether he be a graduate of a veterinary school or *not*, but that bill was so strongly opposed by the veterinarians

of the two societies (the State and New York Connty) that it never came out of committee in that shape, but was changed so that when later on it appeared, it was not objectionable, as it allowed only veterinarians to register who were graduates of a veterinary school. This bill (which I enclose) is known as Assembly bill Nos. 249, 1183, 1349, 1538; introduced by Mr. Cole. Of course, the committee I represent feel that the above bill—which, by the way, has become a law and was signed by Governor Morton last week—is good legislation, as it allows only graduates of veterinary colleges who had omitted to register to do so, but none others.

Assembly Bill No. 995, 1807, introduced by Mr. Harrison, being an act to enable James Wixon, of Steuben County, to practice veterinary medicine and surgery as a profession. It is quite easy to see at a glance what a dangerous piece of legislation this would be had it passed and become a law, and I would ask you to as vigorously denounce even the attempt to pass such bills in your paper as you can. I think even our legislators ought to read an article in our journals that would to a great extent check their zeal in introducing such measures for the benefit of empirics, to the untold injury of the legitimate profession of the State. Imagine, dear sirs, what the practitioners of human medicine and their press would do if a bill like this was introduced for the benefit of some person wishing to practice human medicine by a special act of legislation. I am of the impression that such an act would kill the gentleman who introduced it. Political and lay journals would be teeming with protests. Of course, it is needless for me to say I am happy to know this bill was killed in committee.

Other bills asking for the extension of registration are enclosed herewith. They were all killed in committee.

Senate Bill No. 227, introduced by Senator Sullivan, asking for exemption of veterinarians from jury duty in New York and Kings Counties, was also introduced in the Assembly by Assemblyman Leonard, and was passed by that body, but in the Senate it never got out of Codes Committee. On investigation I found out that the committee had not any real reason to keep it there, only that they had agreed not to report any exemption bills because there were so many of them; but if any were to go out of committee it would have been ours. However, next session I have almost positive assurances that this bill will pass in all right and will not be opposed, as my friends in the legislature have told me so.



Trusting that the above will cover the ground of your inquiry, I remain,

Yours very truly,

ARTHUR O'SHEA,  
*Chairman Committee on Legislation,  
Vet. Med. Asso. New York County.*

---

THE EMBARGO ON FOREIGN CATTLE.

The following correspondence explains itself :

BALDWIN, L. I., N. Y., June 12, 1896.

*Editors American Veterinary Review :*

Inclosed please find a letter from Secretary of Agriculture Morton in reference to Swiss cattle.

A previous letter of similar import in reference to French cattle was received from the Secretary.

I purpose to ascertain whether healthy cattle from either of these countries, after having passed quarantine and tested with tuberculin, may not be imported through Belgium, Germany or Holland.

Yours truly,

A. S. HEATH, M. D. V. S.

UNITED STATES DEPARTMENT OF AGRICULTURE,  
OFFICE OF THE SECRETARY,  
WASHINGTON, D. C., June 5, 1896.

*Dr. A. S. Heath, 205 Patchen Ave., Brooklyn, N. Y.:*

SIR:—Replying to your letter of the 3d inst., I regret that I am unable to certify that cattle from Switzerland can be brought into the United States without danger to the domestic animals of this country. Pleuro-pneumonia and foot-and-mouth disease are both prevalent in Switzerland, and it was principally to protect against these diseases that Congress enacted the prohibition.

Very respectfully,

J. STERLING MORTON,

*Secretary.*

---

THE TREATMENT OF PARTURIENT APOPLEXY.

QUINCY, ILL., June 9, 1896.

*Editors American Veterinary Review :*

I was interested and pleased to notice in the May number, that Dr. Curtiss, of Marengo, Ill., and I had arrived separately at about the same conclusions in the treatment of parturient apoplexy. I had not used the fluid extract of calabar bean, but had used jaborandi,  $\frac{3}{4}$  ii, and spts. nitrous ether,  $\frac{3}{4}$  ii, in an eight ounce mixture. I have given one-half ounce on the tongue every half hour until half the mixture is given (the same

dose practically as Dr. C.), afterwards increasing the time between doses. It has proven infallible (so far) in the early stages or in mild cases, coming on after the third day.

My last case became delirious in six hours and tried to run at us, but one ounce of bromide of potassium relieved those symptoms. This is the second time I have had this form, merging into *Eclampsia*. By actual calculation, as well as experience, I believe that three drams of the fluid extract jaborandi are equal to one grain pilocarpine, though slower in effect, and safer because milder.

Yours,

J. F. PEASE, D. V. S.

#### ABOUT THE AMERICAN RING TWITCH.

LEOMINSTER, MASS., June 12, 1896.

*Editors American Veterinary Review:*

DEAR SIR:—Can you or any of your subscribers tell me how the so-called "American Ring" twitch is applied to a horse? I noticed a cut of it in an English instrument catalogue. It consists of 3 rings and 3 pieces of soft cord. Yours respectfully,

DR. WM. H. DODGE.

### THERAPEUTICAL RECORDS.

**BORAL.**—The boro-tartrate of aluminum, also known in pharmaceutical technique as boral, possesses astringent properties and bactericide qualities which renders it very useful in diseases of the ear—auricular catarrh. It can be used in solution or in powder—having no irritating effects on the tissues.

**CUTOL.**—This is a boro-tannate of aluminum,—which is astringent and antiseptic, is better used for eczemas, cutaneous sores or ulcerations. It can be used as an ointment or powder—  
Ointment:  $\mathcal{R}$  Cutol, 1 part; olive oil, 10 parts; lanolin, 26 parts. Mix. Or  $\mathcal{R}$  Cutol, 10 parts; olive oil, 20 parts. Mix. Powder: Cutol, oxide of zinc, and powder of talc,  $\text{aa}$  equal parts. Mix. Sig. External use.

**NEW ANTITÆNIACIDE SOLUTIONS.**—The solutions of iodurated iodine solutions are recommended as a positive form of treatment against tape-worm, always followed by expulsion of the parasite, and no return of the trouble: Iodide of potassium, 2 gram. 25; crystal iodine, .0 gram. 75; water, 30 grammes. Mix. Fiat sol. Sig. 10 drops three times a day.

**BORATE OF SODA.**—Soluble in solutions of chloride of calcium and of borax, it is employed with advantage in the shape of an ointment against burnt wounds and eczema. Internally it is used as an antidiarrhœic in dogs at the dose of 0.50 centigrammes.

### THAT FAMOUS ASTOR COLT.

This monstrosity was born at the Astor stables, Rhinebeck, N. Y., on the night of May 28th, 1896, the sire being "Confidence Shot," an imported Hackney stallion, 9 years old, the mother, "Alice," being a common-bred mare, brought on from Maine by



Dr. Webb, she being 9 years old, and this her first colt. The colt was perfect in body, large, strong and lively, and would

undoubtedly have lived had pains been taken to feed it, which was done with a bottle a couple of times, until this afternoon, when I put an end to it by opening its jugular. The mother, a year ago, had an acute attack of laminitis (both fore feet) brought on by a long drive. She was down a long time, unable to stand, the soles finally sloughing and dropping, but she eventually made a perfect recovery.

It is claimed in human medicine that sudden frights and great emotional excitement are among the causes of such anomalies. The mother of this was frequently chased by a bulldog belonging on the place, and two or three times caught in the nose by the dog.

FRANK TRAVER, D. V. S., Rhinebeck, N. Y.

[Dr. Traver sent the head of this colt to the museum of the American Veterinary College.—ED.]

## OBITUARY.

JAMES HAMILL, D. V. S.

This well and favorably known practitioner died suddenly from heart disease on Friday, May 29, while occupying the witness chair in the 6th district civil court, and giving expert testimony in a horse case.

Dr. Hamill was born in Bellacastle, County Antrim, Ireland, 55 years ago, attended the national school and served an apprenticeship in horse-shoeing under his father. He came to this country in 1861, worked as a journeymen horse-shoer in various shops, until he formed a copartnership in the horse-shoeing business with Mr. Jas. Atchison, some thirty years ago, locating on 14th Street, near 2d Avenue, New York, which shop he still conducted at the time of his death.

During the many years he devoted to horse-shoeing, he made a special study of the horse's foot and its diseases, and invented many mechanical devices for the scientific treatment of diseases of horses' feet, and to overcome faulty action. His collection of horse-shoes, especially designed to relieve the numerous pathological conditions daily met with in practice, is to-day probably the most complete of any in the country.

He matriculated at the New York College of Veterinary Surgeons in 1876, and graduated from the Columbia Veterinary College in 1879, with honors, in the same class with the late Dr. J. F. Mustoe, of Brooklyn, and the late Dr. C. A. Meyer, of New York. He at once started in practice and in a short period



of time gained a reputation as a skilful, painstaking and conscientious veterinarian that his many friends were justly proud of. He lectured on scientific horse-shoeing and diseases of horses' feet at Columbia Veterinary College, for a number of years, and when that institution became amalgamated with and absorbed by the American Veterinary College, he became a member of the faculty of the New York College of Veterinary Surgeons and filled the chairs of anatomy and physiology until 1890, when he severed his connection with the last named institution and devoted his time exclusively to his extensive practice.

As a practitioner Dr. Hamill was not only extremely skilful, but most painstaking, and above all honest and conscientious in all of his dealings. His vast knowledge and great skill were employed only in the interest of his clients, and even men whose tempers he had ruffled, by a strict and rigid performance of professional duties, could not help but honor and respect him. He leaves a widow, three sons, two daughters and a large circle of personal friends to mourn his unexpected and untimely end.

G. H. B.

## REVIEW OF EXPERIMENTAL PATHOLOGY.

UPON THE TOXICITY OF THE MUSCULAR JUICE OF THYROIDECTOMIZED ANIMALS [*By G. Vassale and C. Rossi*].—The thyroidectomized dog, in advanced strumipriva cachexia, furnishes a muscular maceration which, injected after simple filtration, produces a toxic action upon the dog, when introduced through the veins. The same preparation with the normal dog has no effect. The symptoms are: Stiff and staggering gait, with flexion of the hind quarter; dullness, anorexia, vomiting, fibrillar contractions, muscular shakings, tonic and even clonic convulsions. The result is positive, whether the operation is performed on a normal or a thyroidectomized dog, but offering yet no symptoms. The juice filtrated on Pasteur bougie, remains without effects. The juice from the liver is less toxic, and that of other viscera still less; much more so if injected into the peritoneum instead of the veins. The muscular toxicity will be greater as the morbid symptoms following the thyroidectomy shall have been more severe and long.—(*Arch. Ital. Biol.*)

NEW OBSERVATIONS UPON THE DIAGNOSTIC AND CURATIVE EFFECTS OF THE PRODUCTS OF THE BACILLUS OF GLANDERS [*By A. Bonome*].—1st. Mallein promotes in the man suffering

with chronic glanders a stronger reaction than in a healthy man (about 25 times), viz.: an elevation of temperature after 4 to 7 hours; turgidity of the conjunctiva and nasal mucous membrane, polyuria; as local lesion, a slight, painful and temporary tumefaction. 2d. The hyperthermia is in proportion to the injected mallein (the activity diminishes a little in the following injections). In the days following, there is an inverse reaction (hypothermy at 35.5), which lasts 48 hours, without other symptoms. Repeated injections of mallein in a glanderous patient, have produced a noticeable improvement, but not curative, no more than in guinea-pigs, dogs or horses.—(*Arch of It. Biol.*)

REGENERATION OF THE SPLEEN IN A RABBIT [*By Mr. Ceresole*].—The total splenectomy is well supported by even young rabbits; it does not interfere with nutrition; but there is never a trace of neoformation of the removed organ. There is neither regeneration of the spleen after partial removal of the organ. The left fragment does not increase in size, and its parenchyma does not appear to be the seat of a greater activity. After total or partial splenectomy no macroscopic change can be observed in the lymphatic glands or the bony marrow of the healthy animal. The recovery of the wounds of the spleen leaves a fibrous cicatrix, formed by the proliferation of the fixed cells of the reticulum and of the capsula; which seems to play in this process the most important part.—(*Rev. Sc. Med.*)

ANTI-ANTHRAX SERUM [*By Mr. E. Marchoux*].—The serum of animals (rabbits, sheep) brought by degrees to support very strong doses of bouillon cultures of anthrax, obtains a special property; it possesses positive preventive qualities, it is curative. After the injection of this serum, a temporary stimulation is observed in the reaction of the phagocytes, which brings on the destruction of the bacteridies. In animals, vaccinated by attenuated viruses, they are also destroyed by the phagocytes, but with them the resistance lasts longer.—(*Ibid.*)

A CASE OF REGENERATION OF THE SPLEEN [*By Mr. Landenbach*].—After extirpating the greater part of the spleen in a dog, the animal was allowed to live with what remained. After six months it was found that the organ was entirely regenerated, and had resumed the dimensions and structure of the normal spleen. It weighed 17 grammes, while the part which had been extirpated weighed 19 grammes, 2.—(*Rev. Sc. Med.*)

MARÉC  
the  
pla  
T

applic  
sides  
tende  
region  
applic  
tection  
more  
action  
correc  
feet an  
as it  
ist.

Ordin  
traditi  
Other  
defect  
and le  
for w  
Shoei

"P  
works  
made  
vade-r  
tioner  
great  
taken  
publis  
19 rue

PRACTIC

An  
medic  
every  
stone  
that h  
rue de

## BIBLIOGRAPHY.

MARÉCHALERIE (Horse-shoeing), by A. Thary, Army Veterinarian, late repetitor to the Veterinary School of Alfort. 1 Vol. 16 mo., 458 pages, illustrated with 303 plates. A part of the *Veterinary Encyclopedia of Cadéac*.

The practice of horse-shoeing is not limited to only the application of a shoe on the foot; it demands of the shoer, besides its manual dexterity, special knowledge, relatively extended, on the anatomy, physiology and mechanism of the digital region. This practice consists in the preparation and methodical application on the hoof of the horse's foot of a metallic protection to guard it against wearing, to render its standing more firm, at the same time preserving its form, properties and the action of each of its parts. It has also for its object to palliate or correct defects, congenital or acquired, as well as diseases of the feet and of the extremities. Horse-shoeing is as much a science as it is an art. Mr. Thary's work is divided into four parts: 1st. Anatomy, Physiology and Mechanics of the foot. 2d. I. Ordinary shoeing; II. French shoeing proposed to replace the traditional; III. English shoeing; IV. German shoeing; V. Other foreign shoeing; VI. Bar shoe. 3d. I. Shoeing for defects of the foot and of the legs; II. Shoeing for diseased feet and legs; III. Shoeing after surgical operations; IV. Shoeing for winter-ice. 4th. I. Shoeing of donkeys and mules; II. Shoeing for cattle.

"Horse-shoeing" of Mr. Thary is one of the most complete works, under its limited size, and by its references to the progress made of this science all over the world, is caused to become the vade-mecum of all interested horse-shoers, veterinary practitioners and students. To Americans it must prove a work of great importance, taking into consideration the interest that is taken on this subject by all American horsemen. The work is published by the well-known house of J. B. Baillière & Sons, of 19 rue Hautefeuille, Paris.

## PRACTICAL GUIDE OF DOSIMETRIC MEDICINE.

Another work from that wonderful man, the father of that new medical method, Doctor Burggraeye, who by writings, facts and every means at his disposal, in professional struggles, has left no stone unturned to arrive successfully to the reform of therapeutics that he had inaugurated years ago. Address Dr. Burggraeye, rue des Bagnettes, Gand, Belgium.

## NEWS AND ITEMS.

ELMER E. CRITCHFIELD, western editor of the *National Stockman and Farmer*, has accepted the chair of Hygiene and Breeding at the McKillip Veterinary College.

THE various departments of Brooklyn are filled with veterinarians. Why are not all of those of New York City so filled? Judiciary Committee, here is your chance.

DR. W. L. WILLIAMS, of Bozeman, Montana, visited Chicago on a flying trip and spent two hours at the Chicago Veterinary College in demonstrating that the horses of Montana recover from glanders.

W. L. RHOADS, D.V.S., of Landsdowne, Pa., the energetic secretary of the Keystone Veterinary Medical Association, has in course of construction a large modern veterinary infirmary, necessitated by the requirements of his clientage.

PROF. J. HUGHES has been chosen representative of the Chicago Veterinary College to the coming meeting of the Association of Veterinary Faculties at Buffalo. The doctor will be welcomed as a new and influential member of this association.

DR. L. H. HOWARD, President of the Alumni Association of the A. V. C., has appointed the following members to act on the Executive Committee: Drs. W. H. Lowe, H. D. Hanson, E. B. Ackerman, J. F. Winchester, H. E. Holden, D. J. Dixon, J. B. Hopper.

THE Veterinary Medical Association of New York County held its last meeting till fall at the Academy of Medicine Tuesday, June 2d. The meetings in the fall will be held on the first Wednesday of each month instead of Tuesday, as heretofore.

GLANDERS IN AUSTRAL AFRICA.—According to researches made by Sander, a German physician, glanders had not been observed in South Africa before 1864, since which time it has rapidly spread in the Cape colonies. The southwest is still free from it.

DR. THEOBALD SMITH, formerly of the Bureau of Animal Industry, Washington, D. C., has been elected by the Board of Overseers of Harvard University as professor of comparative pathology, a chair newly created by a gift of a Boston citizen.



IMPORTATION OF CANADIAN CATTLE INTO ENGLAND.—The Montreal Board of Trade has addressed the English government for the abrogation of the restrictions imposed on Canadian cattle. It is claimed with right, that Canada, as well as the United States, is free from contagious pleuro-pneumonia.

IN the reorganization of the faculty of the Chicago Veterinary College all the old and experienced teachers have been retained. Most of the professors have been with the college since its foundation, twelve years ago, a fact which speaks well for the college and of which its officers are exceedingly proud.

PRECOCITY AND FECUNDITY.—A correspondent writes to the *Veterinary Record* a case of a she goat giving birth to a litter of six fully grown, healthy kids, four males and two females, weighing 25 pounds altogether. The sire goat was 9½ months old. It is evidently a remarkable case of precocity and of fecundity.

M. W. TRITSCHLER, M.D., D.V.S., graduate of the American, class of '88, who is now a successful practitioner of veterinary medicine in Cincinnati, Ohio, was a visitor at the office of the REVIEW the early part of June, being on a visit to the East on pleasure and recreation. He reports the profession in a prosperous condition in his city.

THE Judiciary Committee of the Veterinary Medical Association of New York County are in shape to commence prosecuting non-registered men in that county. The committee will be pleased to receive the names and addresses of any one practising illegally. We as veterinarians who have spent time and money to study, ought to help the Committee as much as possible.

THE members of the New York County Society have concluded to invite veterinarians of Kings, Queens and Westchester counties, to join the Society. Watch for the opening meeting in October and be present to join. Veterinarians in the above counties will do well to send their names and others in their locality to the Secretary, Dr. R. W. Ellis, 531 W. 152d Street, New York City.

TRANSMISSION OF ANTHRAX THROUGH OATS.—In December, 1895, eleven horses died in a large establishment in London with anthrax. An inquest showed that the infection was certainly due to feeding oats of Russian origin. Bacteriological examinations of samples of the oats revealed the presence of the bacillus. The oats were washed with sterilized water and fed to other animals, which died of anthrax also.

DR. ED. SAYRE, professor of dental surgery at the Chicago Veterinary College, has received a very flattering offer from the Toronto Veterinary College to come to that school in the same capacity, as the veterinary dental school there has been making inroads into the ranks of the students. This is a new kind of competition between veterinary colleges, but it is hoped that the doctor will remain with his alma mater, where he has made his reputation.

RABIES IN LONDON.—In 1889 there were 123 dogs killed in London as rabid. An order was made for muzzling all dogs, and in 1890 the return fell to 32. In 1891 13 cases were reported and in 1892 a further decrease to only 3 took place. The order was repealed in November, 1892, and the disease increased, rising to 8 in 1893, 12 in 1894, 46 in 1895. In 1896, for the months of January, February and March, 72 cases have so far been recorded.

OUR ESTEEMED CONTEMPORARY, the *Journal of Comparative Medicine and Veterinary Archives*, pays the following compliment to the REVIEW in its issue of June: "The AMERICAN VETERINARY REVIEW for May comes to its readers in a more attractive form than ever, and exhibits a determination to fully sustain its long and prosperous career. A slight change in the color of its cover-pages, a more highly-finished paper and new type of a very readable size will add greatly to the pleasure of its many readers."

UNPROFESSIONAL ADVERTISING.—The Chicago Veterinary College has the sympathy of the veterinary profession in having to acknowledge as one of her graduates R. D. Eaton, M. D. C., who has a flaming advertisement in the *Northwestern Horseman and Sportsman*, of May 15, in which he claims for his "Removine" electric power over all manner of equine ills, and goes into an idiotic and fraudulent explanation of its manner of operation. Oblivion is the only means of reaching this class, which unhappily the law has provided no adequate punishment for.

TUBERCULIN FOR CATTLE IMPORTED INTO FRANCE.—By a law of March last, all animals of bovine species imported into France, which are not to be slaughtered immediately, are to be submitted to the tuberculin test before passing the frontier or before landing from steamers. Exempted from this measure only are the animals which are to be slaughtered, when they are submitted to special regulations before they are allowed to proceed for their destination—with the object of preventing them being

detained  
fore it

REG  
New Y  
on July  
trouble  
perform  
have be  
the 22d  
which  
of the S  
themsel  
clerks  
nature.

SOM  
with th  
REVIEW  
you hol  
ICAN V  
any way  
life wo  
ings?  
of treat  
Do you  
on the  
Do you

How  
the oth  
which  
had bee  
tor him  
unmist  
ing eje  
pearing  
efforts  
had the  
he sho  
placed  
treatme  
structio  
jection  
this em

detained, and to insure the sanitary inspection of their meat before it goes to the market.

REGISTERING IN NEW YORK STATE.—Many practitioners in New York State had failed to register when the books closed on July 1, 1895, and they then realized what an amount of trouble they had precipitated upon themselves by thus failing to perform a very easy obligation, and a duty which should not have been left undone. When, therefore, a bill became a law on the 22d of May giving all graduated men two more months in which to become registered, by unanimous recommendation of the State Examining Board, they rushed precipitately to avail themselves of the opportunity thus afforded, and the county clerks have had considerable business on their hands of this nature.

SOME QUESTIONS FOR VETERINARIANS.—Do you keep up with the times? . . . Do you read the AMERICAN VETERINARY REVIEW? . . . Do you keep a record of your cases? . . . Do you hold post-mortems? . . . Do you report cases in the AMERICAN VETERINARY REVIEW? if not, why not? . . . Do you in any way try to advance the profession you have selected as your life work? . . . Do you ever attend veterinary society meetings? . . . Do you meet other veterinarians and talk over modes of treatment? . . . Do you use drugs—hypodermically? . . . Do you supply your own drugs? . . . Do you present your bills on the first of each month? . . . Do you get the money? . . . Do you charge extra for night calls? F. X. T.

HOW EASY IT IS TO ERR.—A well-known veterinarian said the other day that his assistant had been treating a case of colic, which had been quite persistent, and many injections of morphia had been given. Upon hearing of alarming symptoms the Doctor himself hastened to the patient, and found the animal giving unmistakable evidence of œsophageal choke, food and water being ejected through the nostrils, a distinct hard enlargement appearing in the gullet, three inches below the larynx, and painful efforts being made to swallow without accomplishing it. He had the horse sent to his infirmary, and notified the owner that he should probably have to perform a delicate operation. He placed the patient under local antispasmodic and oleaginous treatment, and gradually the symptoms disappeared, the obstruction proving to be a subcutaneous abscess, due to the injection of morphia immediately over the œsophagus. Doesn't this emphasize the instructions not to inject over the seat of im-

portant organs? What a natural error. What an embarrassing mistake.

ACCORDING to the *Breeders' Gazette*, "Dr. M. E. Knowles, formerly State veterinarian of Indiana, and for several years in charge of the veterinary and sanitary work on the immense Bitter Root Stock Farm of Marcus Daly, Hamilton, Mont., has resigned his position with the 'Copper King.' He will continue his residence at Hamilton for the present. Dr. Knowles has wrought a great work at Bitter Root Farm. Abortion had completely stopped progress in the breeding of runners and trotters, and Mr. Daly was fairly in despair in the face of this insidious foe, when the reputation Dr. Knowles had acquired in the treatment of barren mares from Kentucky to California reached him, and the services of this gifted and thoroughly educated veterinarian were taken from the State of Indiana and utilized at Bitter Root Farm. We have before related the complete success of the measures instituted by Dr. Knowles to combat the plague on that farm, and he resigns his work there with an unequalled record. Among the other valuable services Dr. Knowles has rendered at Bitter Root was the saving of the life of Tammany when all had given up hope."

---

### REVIEWS WANTED AND FOR SALE.

VOL. XIII.—I have for sale at 25 cents Nos. 1, 2, 3, 4, 5, 6, 9, 10 and 11, or will pay 50 cents each for Nos. 7, 8 and 12.

VOL. XIV.—Have for sale at 25 cents each Nos. 3, 4, 6, 7, 8, 10, 11 and 12, or will pay 50 cents each for Nos. 1, 2, 5 and 9.

VOL. IX.—I have for sale Nos. 1, 2, 3, 4, 7, 8, at 20 cents, and Nos. 2, 5, and 6 of Vol. 6; and No. 10 of Vol. 12; also No. 1 of Vol. 13, and No. 7 of Vol. 14, at 25 cents each.

L. L. CONKEY, V. S.,

Corner Butterworth St. and Indiana Ave.,  
Grand Rapids, Mich.

---

### FOR SALE.

A well paying practice in Illinois established nearly 6 years. Will sell with or without horses, barn, etc. Will sell cheap. Good reason for selling. Address: "PRACTICE," care AMERICAN VETERINARY REVIEW, New York.

---

### America or Canada.

WANTED to know of a genuine opening for an experienced M.R.C.V.S., at either of the above places. Any one giving reliable information of a suitable town will be rewarded. Informants should state the name and population of the town, and whether there is or has been a veterinary surgeon there, also the nature and extent of the practice likely to be done. Address, 2505, V.R., 20 Fulham Road, London, S. W., England.

---

VETERINARY SURGEONS who desire legally to append M. D. to name, address MEDICO, 1001 Congress Street, Chicago.